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# The Journal

of the

## Michigan State Medical Society

The Official Organ of the State and County Medical Societies.

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

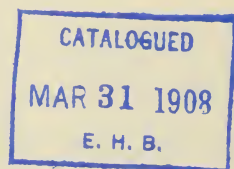
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B. R. SCHENCK, M. D., EDITOR  
C. S. OAKMAN, ASSOCIATE EDITOR





# The Journal of the Michigan State Medical Society

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VOL. VI

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No. 1

Original Articles

## A CONSIDERATION OF CERTAIN RECENT DEVELOPMENTS IN PRACTICAL SERUM THERAPY\*

A. P. OHLMACHER, M. D.  
Detroit

Naturally the pre-eminent position in the list of remedies comprehended by the term, serum therapy, must be assigned to antidiphtheric serum or diphtheric antitoxin, which, of all the serums thus far evolved for application in the human being, has earned the distinction of being an absolute and certain specific. In truth, of the multitude of serums for other microbic diseases which have been produced and tested since the epoch in therapeutics inaugurated by Behring's and Roux's discovery, antidiphtheric serum has alone wholly fulfilled the expectations of those who believed a new era in the conquest of man's maladies had been inaugurated. But all the problems relating to this important biologic agent have not yet been solved. Take, for instance, the weighty matter of dosage. Here after some fluctuations caused by the occasional success in obtaining a very high potency serum in the uncommon horse, and the consequent stress laid upon the small dose of serum very high in unitary value, we find the current tending towards larger doses, or, in other words, more massive doses, irrespective of the potency. In several quar-

ters, and more particularly in the splendid results obtained in the Boston City Hospital, the importance of using larger quantities of serum has been demonstrated. It appears, indeed, that for the practical end in view, namely, the cure of diphtheria, a large dose of low potency serum is actually more effective than a small dose of one strongly impregnated with antitoxic power, and there are those who believe that these favorable consequences are due to the presence in antidiphtheric serum of some substance besides the specific antibody of diphtheria which, acting as a complement or otherwise, assists the specific antitoxin in overcoming the disease. My personal observation which began with an experience in producing antidiphtheric serum in the early days of its introduction and which has continued in private and institution practice, inclines me strongly to this view.

### "Refined and Concentrated" Antitoxin.

Allied to this question of dosage comes a consideration of antidiphtheric globulin solution, or as it is called in commerce, "refined and concentrated" diphtheric antitoxin, the chief merit of which is said to be its small dose and a reduction in

\*Read before the Wayne County Medical Society, November 5, 1906.

frequency of serum reactions. This product which has been known in the experimental laboratory for several years is obtained by treating ordinary antidiphtheric serum after the process devised by Pick, Seng, Atkinson and others, and modified by Gibson. Essentially the procedure is to precipitate with ammonium sulphate, the proteids of antidiphtheric serum. These proteids are collected, dissolved, reprecipitated, then dissolved in saturated common salt solution. Here a separation of proteids ensues, certain globulins, including those carrying the antitoxin, being dissolved in the salt solution from which they are precipitated once more by ammonium sulphate or weak acetic acid. The final globulin precipitate is then subjected to dialysis by which the salts are removed and its solution follows. This solution of the globulins which is reduced in bulk as compared with the original serum volume, and which contains the antitoxin minus a certain amount lost in the manipulations, after bacterial filtration and the addition of a preservative, is the finished product, and in its smaller volume represents a concentration of the original antitoxic content of the serum. By this treatment one leaves behind serum albumin, the globulins insoluble in saturated chloride solution, the salts and extractives of the serum, and the finished product is a most attractive looking, clear fluid, which, in guinea-pig essays, neutralizes the test toxin just as does the antidiphtheric horse's serum.

Waiving the matter of volume in dosage which, after all, is of little significance to the physician skilled in serum injections, comes the vital question—does this solution of antidiphtheric globulins represent all the curative substances residing in the native horse's serum and essential for combating diphtheria in man in all its clinical manifestations, including the various forms of mixed infection. Or, to put it otherwise,

will globulin antitoxin endure the test of time and usage in an enormous number of cases which antidiphtheric serum has so splendidly withstood? If so, and if by its use, the frequency of serum sequels can be somewhat reduced, it should ultimately replace the whole serum as now employed.

#### Antitetanic Serum.

As for antitetanic serum, it must be reluctantly confessed that the beguiling promises of the laboratory have not been upheld at the bedside of the patient afflicted with lockjaw. The specificity of this serum as tested on laboratory animals is demonstrable by the same beautiful accuracy as obtains with antidiphtheric serum, but when man is infected by the tetanus bacillus to a point at which symptoms show, his organism is apparently overwhelmed by the deadly tetanus toxin to an extent prohibiting neutralization by antitetanic serum however administered, and by however heroic a dosage. Offsetting its therapeutic failure, however, is the certainty of its success as a prophylactic, and the vast importance of using subcutaneous immunizing doses of this serum in cases of suspicious wounds, and of dusting the dry powdered serum locally cannot be overstated.

To American physicians who have felt the desirability of some uniform measure of value of commercial antitetanic serum, it will not be unwelcome news to learn that the Hygienic Laboratory of the U. S. Public Health and Marine Hospital Service is about to establish a standard, which will be for tetanus serum the same guarantee of uniformity that their official or Standard Unit is for all antidiphtheric serums admitted to interstate commerce.

#### Utility of Antistreptococcic Serums.

Antistreptococcic serums, of which several are found in commerce both in the United States and in Europe, cannot be said to have fulfilled the original ex-



pectations of their therapeutic efficacy. Furthermore, there is much variation in the different brands found on the market, both in their behavior in laboratory tests and in their use at the bedside. I cannot here discuss the very inviting subject of animal tests of antistreptococcic serums, or point out what in my estimation is the absurd futility of attempting to gage the therapeutic value of these serums in human infections by mouse, rabbit or guinea-pig experiments. But appraised by the supreme trial of any therapeutic agent's serviceableness—the results of its clinical application—one must admit that for certain at least of the products now found on the market, evidence is strongly in favor of their usefulness in various streptococcus infections whether primary or secondary. From what I have individually seen during the last year in the trial of a certain antistreptococcic serum, and from what has come to my personal notice of the written or verbal testimony of competent medical men, I cannot escape a conviction as to its therapeutic value in such affections as scarlet fever, acute and chronic rheumatism, various local or regional streptococcic infections including acute otitis media and mastoiditis. In the streptococcus mixed-infection of phthisis, a curious contradiction exists in the extreme enthusiasm of one group of reporters and the unqualified dissent of another. A similar incompatibility is found in recent German literature concerning the value of antistreptococcic serum as a prophylactic against infection in extensive surgical operations, either in conditions in which pre-existing infections are likely to be aroused to further activity or where the extent of operative mutilation predisposes to infection.

But with what we know of our helplessness in the face of many infections with the streptococcus, and since biologic therapy has not yet offered, at

least for acute streptococcic diseases any remedy except antistreptococcic serum, physicians should, I believe, allow themselves to be swayed by the clinical testimony thus far adduced, and give their patients the benefit of such doubt as may exist, administering antistreptococcic serum in sufficient doses to permit a fair trial.

### Serum Therapy of Pneumonia.

Of antipneumococcic serum it may be said that the status is one of uncertainty much more pronounced than regards the antistreptococcic serums. That this should be the case must cause profound regret on the part of every physician who realizes that croupous pneumonia heads the list of fatal acute infections during the cold season in our north temperate zone, and that it chooses indiscriminately young and middle-aged robust adults in all walks of life. Today one hears little or nothing about several serums for pneumonia proclaimed in Europe on the basis of laboratory experimentations and a limited trial in hospital and private practice. Perhaps the same fate may await a report which I possibly may make in due time of an antipneumococcic serum which has been produced under my direction, and which was given preliminary clinical trial last spring in Detroit through the kind co-operations of several local physicians, and in three of the leading hospitals of Chicago.

My own verdict on these tests of the new serum for pneumonia is—satisfactory but not conclusive. Satisfactory is a justifiable report in that no untoward or harmful effects were noted, though considerable amounts of serum were used in several cases, intravenous injection being practiced in the most urgent ones, and, further, some astonishing and rapid recoveries, quite out of accord with what one might expect to see in the ordinary course of cases of pneu-

monia of the same type, were noted. The decision is inconclusive from lack of a sufficient number of cases to warrant more than preliminary deductions, and for the reason that some of the material was of far-advanced pneumonia, complicated pneumonia, and the pneumonia of particularly poor subjects like alcoholics, a class of cases that should, except for a most far-reaching trial of the serum's virtue, be excluded. The one particular impression gained by the use of this product was the remarkable manner in which it aborted or cut short what apparently were beginning typical attacks of lobar pneumonia.

### Cerebrospinal Meningitis.

Another conquest of the biologic therapist greatly to be desired is that of cerebrospinal meningitis which, in sweeping epidemics or in insidious sporadicness, has made itself a dreaded scourge among the civilized races, particularly of the north temperate zone. Activity in this direction has not been fruitful to the present time. For example, during the Silesian epidemic of cerebrospinal meningitis in 1905 Göppert treated eight patients with a serum obtained from Doyen in Paris, with apparently detrimental effects in all of them. This serum, when examined by v. Lingelsheim was found to be devoid of any agglutinative action on the meningococcus. Kolle and Wasserman have produced an antimeningococcic serum which has been tested for its agglutination, and for its opsonic power in rabbits. So far as I can learn the clinical usage of this product has not been reported. Flexner, from the Rockefeller Institute, and several workers in the research laboratory of the municipal health department of New York, have made immunizing experiments in various animals and have tested the serum in experimental meningitis of guinea-pigs and monkeys.

My personal efforts which are now

given publicity only in a preliminary manner, have extended to the test in four cases, of the serum from a horse treated with the poisons obtained from the meningococcus by a method already published. This serum certainly differs from the reported action of Doyen's, as it is highly agglutinative for meningococci and, though employed in large, subcutaneous doses, aroused in none of the patients harmful effects except a slight and transient serum reaction. There seems to be an agreement on the part of the several Detroit physicians through whose kindness I obtained access to these cases that a prompt and beneficial influence on the nervous symptoms (delirium, stupor, coma, restlessness, etc.), followed the administration of the serum. In the first case, one of the fulminant variety which I saw with Dr. P. B. Taylor within twelve hours of its terrific onset, the patient was able to leave her bed in three weeks and has made a perfect recovery with the exception of total deafness. The other cases which were kindly placed at my disposal by Dr. P. C. McEwen and Dr. W. G. Hutchinson were more advanced in the disease (7 to 10 days). One of these has made a surprising recovery after passing through the hydrocephalic stage of subacute meningitis. The two other patients died after removal from the hospital, where one was apparently on the road to restoration. This meager material would seem to indicate that the serum in question possesses antitoxic properties, but in its present form is powerless to check the progressive bacterial infection. I am in hopes that some improvement or combination may be secured whereby the antitoxic effects of a serum for cerebrospinal meningitis can be reinforced in the direction of an antibacterial property.

### Gonorrhea.

Serum therapy has not yet conquered



the ravages of the gonococcus, though interest in this alluring possibility has recently been revived by the report of J. C. Torrey on the production of an antigonococcus serum from rabbits, and of Rogers concerning the use of this serum in gonorrheal rheumatism. Both in the employment of rabbits' serum in these experiments and in those of Beebe and Rogers who injected the serum of specially treated rabbits in patients with exophthalmic goiter, a peculiar and very troublesome reaction followed, seemingly induced by the blood serum of this animal. Undoubtedly this objection will be largely obviated if the horse can be successfully treated with the gonococcus or its products, and I look with hopeful anticipation to an early date in which such a serum will be available for the treatment of gonorrheal rheumatism, and, along a different line, I believe we shall soon enjoy a specific and satisfactory biologic therapy for the various manifestations of subacute and of chronic gonorrheal infections.

### Technic of Serum Injections.

My contact with physicans at the bedside indicates that a few words about well-established features in the technic of serum injections may not be out of place. The mistake of injection into the muscles, especially of the buttock or limbs, should be avoided as unnecessarily painful; and for the preferable subcutaneous injections the site of election is the loin or flank where, if one penetrates the proper layer of tissue a quantity of serum of 40 cc. to 60 cc. and even more, can, if necessary, be inserted through a single puncture with no particular discomfort to the patient, and with only a diffuse temporary and moderate swelling. Then there still exists the fallacy about the danger of air injection which was thoroughly exploded several years ago by McClintock and others.

Intravenous injection of serums is in-

dicated wherever there is a necessity for prompt action, as in advanced and even apparently hopeless cases of diphtheria, in tetanus, and in septicaemias. With the convenience afforded by the ready-to-inject devices of American serum establishments, direct intravenous injection is not especially difficult. The sterile needle with its rubber connection is inserted in the chosen vein (median cephalic or basilic preferably) rendered prominent by light bandage of the arm, and when the flow of blood announces the success of this maneuver the serum-containing syringe, with its contents heated to approximate the body temperature, is attached and the injection completed.

### Rectal and Oral Administration.

Rectal administration of curative serums, especially those which are designed for use in chronic diseases, is gradually obtaining more extensive trial. Experimental investigations upon laboratory animals have given no definite information as to the possibility of obtaining through the rectum an absorption of the particular antibodies contained in the serum, indeed, my own tests in this direction indicate that antidiphtheric serum per rectum in dogs does not afford protection against diphtheria toxin subsequently injected through the skin. But on the other hand, competent clinicians in increasing number record beneficial effects where serums like the antistreptococcic are used per rectum in treating chronic streptococcus infections. Added to this testimony is the advantage that horse's serum by the rectum does not excite the more severe serum reactions observed in subcutaneous injection. The practice of using these rectal injections when the bowel has been emptied by a laxative and flushed, and of diluting the serum with two or more times its bulk of normal salt solution seems to me excellent.

It is not improbable that further clinical experience will confirm the claim of those whose habit it is to give curative serums by the mouth, especially under circumstances where subcutaneous injection is impossible or where no especial urgency exists. As an extreme exponent of this method of serum medication is Paton, who uses weak antidiphtheric serum per os in many kinds of infectious and other diseases irrespective of the offending microorganism; and who claims that beneficial results accrue from the increased tissue resistance and the leucocytosis provoked by antidiphtheric serum administered in teaspoonful doses at frequent intervals.

#### Hypersensibility to Serum.

The annoying reactions which follow the use of serums, and the happily rare accident of sudden death have been in-

vestigated along new lines of late. I cannot do more on this occasion than to call attention to the exhaustive studies of v. Pirquet and Shick on the "serum disease" as they style the various sequels of serum injection, and of Rosenau and Anderson from the Hygienic Laboratory of the U. S. Public Health and Marine Hospital Service who have experimentally investigated the subject of hypersensibility to horse's serum in laboratory animals. But one conclusion must be impressed on practicing physicians namely, that serum reactions and accidents are due to the foreign serum itself and have no relation to the particular antibodies (antidiphtheric, antitetanic, etc.,) contained in the serum. Further, it has been shown that the "refined and concentrated" diphtheric antitoxin is quite as capable of arousing the peculiar reaction in guinea pigs as is the whole native horse's serum.

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### CONCLUSIONS DRAWN FROM THREE YEARS' EXPERIENCE IN THE SERUM TREATMENT OF ACUTE ARTICULAR RHEUMATISM.\*

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GEORGE H. SHERMAN, M. D.,  
Detroit

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The theory that acute articular rheumatism is due to an excess of lactic or uric acid in the blood had to give way to the researches of bacteriologists. The disease is now regarded by authorities as belonging in the class of infectious diseases, since many indications strongly point to its being of microbic origin. The exact nature of the microorganism has not been definitely determined, but that it, if there be a specific one, is a micrococcus is quite well established.

Wasserman, Menzer, Malkoff, Westphal and Allaria believe the microorganism to be a streptococcus or a diplococcus. Poynton and Paine are of the opinion that it is a diplococcus, while Tribolet and Walker and Ryffel consider the bacterium which has been designated as the *Micrococcus Rheumaticus*, as the specific organism causing the disease.

Clinical experience teaches that a polyarthritis often follows tonsillitis, infected wounds, septicemia, boils, scarlet fever and other infectious diseases. This,

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\*Read before the Section on Medicine at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

with the various bacteriologic findings, seems to indicate that the disease may be caused by a variety of microorganisms, probably all belonging to the same species.

The exact nature of the infection not having been definitely determined, the rationale of using streptolytic serum in rheumatism may be questioned. In this regard it is well to consider that nature's method seems to indicate that immune serums have a larger field of application than the specific infections caused by the organisms in their production.

O'Malley<sup>1</sup> and Raynard<sup>2</sup> report favorable results with antidiphtheric serum in treating pneumonia. Huber<sup>3</sup> and Wolff<sup>4</sup> report favorable results with the same serum in treating cerebrospinal meningitis. Lopez<sup>5</sup> reports an extensive experience with marked beneficial results in treating "scarlet fever, tonsillitis, quinsy, etc.," with the same serum. Dr. Gottman, of Detroit, informs me that he has had four years' experience with the same serum in treating scarlet fever, usually with good results. I have repeatedly used antidiphtheric serum in scarlet fever and non-diphtheric throat infections for more than six years, with unquestionably good results. Ogli<sup>6</sup> reports favorable results with an anti-streptococcic serum in endocarditis. Dr. J. W. Foss in his report of mixed infection in tuberculosis treated with streptolytic serum says that "staphylococci disappear in almost the same ratio as streptococci." Others who have used streptolytic serum in mixed tuberculous infection have made the same observation.

The practitioner is not so vitally concerned as to *how* these serums cure diseases; practical results are what he is primarily looking for. Acute articular rheumatism, like other infectious diseases, varies in severity in proportion to the resisting power of the individual and the virulence of the invading or-

ganism, which produces mild types in some, and malignant types in others. When the mild types are met with it is often difficult to determine whether the inflammatory condition of the joints is caused by an infection or from other influences. For all practical purposes, however, we are safe in considering inflamed joints with a tendency of the inflammation to shift to other joints, associated with pain and fever, as being due to rheumatic infection.

Under the conventional treatment the results are not satisfactory. Clinicians differ in opinion as to the value of the salicylates, some ascribing specific action to them while others consider them merely sedatives, relieving pain. While a large majority of cases recover in from one to six weeks, the tendency to relapse is recognized. These relapses in many cases are so frequent and occur at such short intervals that the joints become enlarged and crippled from inflammatory deposits and adhesions, the condition becoming chronic. In other cases, the treatment is so inefficient that the inflammation in some of the involved joints lapses from the acute into the chronic state resulting in deformed, enlarged and painful joints. It is in preventing these relapses and prolonged cases, by instituting more efficient treatment in the acute stage, that the hope of avoiding cripples from rheumatism must be looked for.

These chronic cases are often erroneously diagnosed as "arthritis deformans," simply because the joints become enlarged and deformed. In articular rheumatism, lapsing into the chronic state, the seat of the trouble is primarily in the soft parts, associated with swelling, effusion and adhesions extending into the bony structure, causing enlarged, deformed joints. In arthritis deformans the original seat of the trouble is the bony structure with a distinct persistent tendency of the bones to become en-



larged and encroach upon the mobility of the joint, while the soft parts are not much involved. There is not much pain when the parts are at rest, and little or no fever is present. In chronic rheumatism the infection of the joint becomes chronic in the same manner as we have cases of chronic erysipelas and other intractable infections.

Heart infection, under the conventional treatment, is one of the most serious complications of acute articular rheumatism and unfortunately is quite frequent. From reliable statistics it appears that about one-third of the cases so treated are left with a crippled heart. In this regard the efficiency of the serum treatment is clearly shown. Of my 24 cases of acute rheumatic fever treated with streptolytic serum, but two developed heart complications. One occurred in a child two weeks after the joint infections subsided, which had yielded very promptly after two 10 c. cm. doses of the serum, each given hypodermically. Forty c. cm. of serum were given per rectum for the heart complication. The condition of the heart gradually improved, resulting in a good recovery. I feel certain that if more serum had been given at the start, the heart trouble would have been prevented.

The other case occurred in a boy, aged 16, subsequent to a slight relapse, which took place two weeks after recovery from the initial attack. There was no treatment given during this relapse, the inflammation subsiding spontaneously. Examination of the heart at this time revealed nothing abnormal. The boy was not seen until some months after that, when the heart trouble was discovered. The heart infection probably developed from lingering germs after the relapse. If serum had been given at the time of the relapse this complication might have been avoided.

The length of time required to effect a recovery with the serum treatment

varies. In acute cases the earlier in the course of the disease the treatment is started, the better, corresponding in this regard with serum therapeutics in other diseases. When the treatment is started during the first or second day, recovery usually takes place in a few days—the disease is aborted. In cases of longer standing it will require from one to two weeks' treatment. Where the conventional treatment has been used for one or more weeks without improvement, the results from the use of the serum vary, some patients recovering very promptly, while others require from three to four weeks attention, but they always recover.

The treatment is usually started with an initial dose of 20 c. cm. of the serum followed with 10 c. cm. every day thereafter, until the inflammatory condition subsides. In severe cases, 20 c. cm. should be given every day. In cases where there is considerable elevation of temperature the serum is tolerated better than in mild cases. So more serum can be given without producing a disagreeable reaction. A good index as to the tolerance of the serum is the amount of local inflammation produced by the serum from the previous injection. If there is considerable inflammation and swelling at the site where the serum was injected the previous day, the indication is that the patient does not tolerate the serum well, and if the treatment is pushed, will develop a disagreeable urticaria. In these cases the serum should be given per rectum. I have had some experience with the rectal use of the serum and find it quite efficient, although not as positive as the subcutaneous method. In acute cases I have particularly noticed that when additional joints become involved after the treatment is started, the inflammation in these joints does not last long. In persistent cases the inflammation may start anew in joints that have recovered, but if so, it always subsides in a



few days. I use no special diet in my cases and no treatment other than the serum. After the fever subsides, the patients usually have a good appetite and the prolonged, anemic, debilitated condition, following the conventional treatment, does not occur. One thing is essential: this serum treatment should not be used as a last resort—after everything else has failed, if the best results are to be expected.

Among the patients treated with the serum, I have had three relapses. One occurred one year after the first attack. Six doses of serum were required in the relapse to effect a cure. It is now nearly two years since his last attack. In the second case, the relapse took place eight months after the first attack. The patient came to my office requesting a repetition of the serum treatment. One dose of 10 c. cm. was all that was required. In the third case the relapse occurred two weeks after the first attack. This is the case referred to with the heart complication.

In chronic cases, where there is a distinct history of the condition having started with an acute attack which confined the patient to bed, the serum treatment is uniformly beneficial. The beneficial results may not be apparent at the start, but if the patient is brought under the influence of the serum, improvement will come. There is a distinct tendency on the part of the patients to continue to improve for months after the treatment has been discontinued. Chronic cases where there is no fever, do not tolerate the serum as well as acute cases, the serum producing disagreeable urticaria, if the treatment is continued. For this reason it should be given at intervals of from two to three days, in 10 c. cm. doses.

When much swelling is at the point of injection the serum should be withheld for a week or more. After a patient has once had a serum-urticaria, he becomes very sensitive to subsequent injections, sometimes one dose of 10 c. cm. being sufficient to produce the rash. These urticarias are always associated with joint-pains and some fever. Where a patient becomes sensitive to the hypodermic use of the serum it should be given per rectum, but in larger and more frequent doses. The treatment should be kept up for months, according to the nature of the case. In one case, I gave the serum at intervals for a year. This was a case of five years' standing and very much crippled. The patient's suffering from repeated relapses has been stopped and her crippled condition very much improved. No beneficial results were obtained in three cases of true arthritis deformans in which the serum was used. In one case of muscular rheumatism no results were obtained.

From a few articles in medical journals it appears that some clinicians are still contending against the infectious nature of acute articular rheumatism. The efficacy of the serum treatment, as demonstrated by actual clinical results, should, it seems to me, be conclusive evidence as to the infectious nature of the disease.

In conclusion, I would say that the results thus far obtained are (a) a material shortening of the course of the disease, (b) no relapses into the chronic state, (c) heart complications diminished in frequency or more often entirely prevented and (d) chronic cases much improved with a distinct tendency to complete recovery.

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1. *J. A. M. A.*, Jan. 31, 1903.
2. *Am. Med.*, Jan. 1, 1901.
3. *Med. News*, April 15, 1905.

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5. *Am. Med.*, Jan. 27, 1906.
6. *J. A. M. A.*, April, 1903.

## DISCUSSION.

E. C. Yarborough, Detroit, stated that it has been his observation that all these cases, both acute and chronic, are benefited by the serum treatment. Very recently he saw one of Dr. Sherman's patients who had been a cripple for years. There were flexion and ankylosis at the knees. The patient was unable to rise from the

sitting posture without assistance. Following treatment, flexions lessened so that her crutches had to be lengthened  $4\frac{1}{2}$  inches.

G. H. Sherman, Detroit, in conclusion, said that his experience convinced him that serum treatment had no bad effects and very much in its favor.

## PATHOLOGY OF PNEUMONIA\*

WILFRID HAUGHEY, A.M., M.D.,  
Battle Creek.

Pathologically there are three different and distinct types of pneumonia: Lobar, Broncho-, and Chronic Fibroid.

## LOBAR PNEUMONIA.

Lobar pneumonia is an infectious disease with certain definite and constant pulmonary lesions, which develop in a well-defined course. The first stage is one of simple hyperemia, obviously very difficult to demonstrate pathologically. Hyperemia of the lung is only a relative condition at most, and that condition changes within varying limits after death. Then, too, there are very few patients, indeed, who die during this primary congestive stage. At this time the lung is of a bright red color modified by the normal pigmentation—anthracosis, etc.

The engorgement increases, the pleura loses its luster, and minute hemorrhagic infarcts, or extravasations of blood make their appearance. Upon section, the lung resembles the spleen in consistency and appearance, whence the commonly applied term, splenization. Blood and air follow the knife which meets with no resistance. Crepitation of the lung substance is undiminished, and pieces when thrown into water float

at a slightly lower level than normally.

Microscopically some of the capillaries—those of the pulmonary set—are seen to be distended, and the epithelium lining the air vesicles is slightly swollen. As this condition continues for a few hours the capillaries are widely distended, the epithelium more swollen, and some is beginning to exfoliate, with the accumulation in the air vesicles of a few epithelial cells, many leucocytes, and some serum that is beginning to filter through the distended capillaries.

When the air cells are filled by these cast-off epithelial cells, leucocytes and erythrocytes, which also pass through the vessel walls by the process of rhexis, and by the fibrinous exudate, the fibrin is deposited, consolidating the whole mass and binding the contents of the adjacent vesicles together by the passage of fibrous strands through minute holes in the walls called stomata, then we have the second, or stage of red hepatization,—the mass being red from the presence of so many erythrocytes, the name significant of the close resemblance to the liver on section, both in consistency and gross appearance. The cut surface looks and feels granular, due to the projection of the plugs of fibrin which fill the air vesicles and bronchioles. These plugs are easily removed

\*Read before the Calhoun County Medical Society, at Battle Creek, September 4, 1906.

by the edge of a knife, carefully scraped over the cut surface. Crepitation is entirely absent now, showing the absence of air, and the tissue sinks rapidly when placed in water.

During this time the pulmonic capillaries have become occluded by thromboses which gradually force their way back toward the larger pulmonary arteries and the heart, and no blood is passing through this diseased portion of the lung for purposes of aeration. The other set of capillaries, the pneumonic, which carry the systemic blood for purposes of nutrition, are but slightly, if at

The red pigment is gradually absorbed from the blood cells imprisoned in the consolidated mass; leucocytes accumulate in great numbers; and fatty degeneration sets in, producing gray hepatization, so named from the color assumed. The tissue becomes soft and uneven in color, giving a mottled appearance. A small amount of proteolytic enzyme has been produced from the breaking down of leucocytes, which has just begun, and this dissolves the fibrin so that it cannot be demonstrated microscopically. Gray hepatization is in reality only the beginning of resolution.

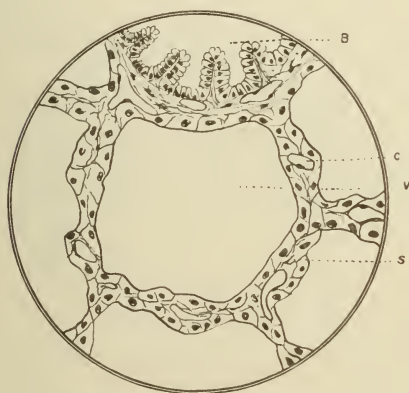


Fig. I. - B. Small Bronchus. C. Capillary  
V. Air Vesicle. S. Septum  
Normal Lung - Semi-Diagrammatic



Fig. II. - M. Stoma. C. Capillary. S. Septum  
F. Fibrin. D. Degenerated Epithelial Cell.  
L. Leucocyte. Lobar Pneumonia.

all, affected, as is shown by the fact that the lung tissue is well nourished, and continues so except in those rare cases in which gangrene develops, and that only follows the occlusion of this pneumonic circulation to the part.

Usually at this time the pleura adjoining the diseased lobe, and often that more distant, is covered by a dense, hard, fibrous layer which may be as much as an inch in thickness, and may bind the visceral to the parietal pleura. The affected area of the lung, if of any considerable size, will now show the impression of the ribs.

The term purulent infiltration, often applied to the lung in the condition just described, is a misnomer, for there is no true pus present, except in isolated cases when a secondary purulent infection has occurred. The pus-resembling material is a fatty, granular detritus.

By the increased breaking down of the leucocytes, proteolytic enzymes are now formed in great profusion, which together with the process of fatty degeneration, softens the consolidated mass, liquefies it partially, and it is removed by the lymphatics, by the blood, and by expectoration. This process is called



resolution, and continues until recovery is complete. The thrombotic material in the pulmonary circulation is gradually absorbed by the blood, being rendered soluble by the action of proteolytic enzymes produced as before described. The epithelium covering the walls of the bronchioles and the air vesicles is regenerated, and the lung resumes its normal appearance, so that after recovery it is impossible to tell from microscopical examination that the disease has been present.

Resolution is sometimes delayed, making a long, slow process. Much speculation has been advanced to account for this condition, but recent observations by H. W. Cook in the laboratory of Johns Hopkins Hospital, on the nitrogen elimination of pneumonia patients, show that this is very high during resolution, and continues so in the cases of delayed resolution until it is completed. The nitrogen comes undoubtedly from the increased excretion required by the removal of the consolidated mass in the lungs. The persistent high percentage of nitrogen eliminated would seem to indicate that there is a continued exudation, rather than simply a delay of resolution. If the latter were the case it would be impossible to account for the large amount of nitrogen eliminated.

The processes of lobar pneumonia as above outlined do not occur as distinct and separate stages, but merge one into the other. A section from such a lung will often show two and sometimes three stages of the process in adjacent fields of the microscope. Neither do these processes occur with any distinct regularity as to time—the whole process, clear through resolution, may take place in three days. Holt has seen a lung in the twenty-sixth day of the disease and resolution not yet set in. Coplin reports a case in the stage of red hepatization the thirty-ninth day from the initial chill.

Purulent degeneration and gangrene may occur at the beginning of resolution if the proper conditions are present—secondary infection, and occlusion of the pneumonic circulation.

Lobar pneumonia is not a true inflammation, for the tissues do not all show the inflammatory process. The inter-vesicular septum is very slightly if at all affected, the epithelial lining of the vesicles and the pulmonary circulation being the seat of disease, and the exudate being different from that usually present in inflammations, being fibrous rather than serous.

Cloudy swellings of the heart muscle, liver, and kidneys are the main complications, and are due to the method of disposal of the consolidated mass. Dilatation of the right heart also occurs, due to the increased resistance of the pulmonary circulation and a consequent increase in the work of the right ventricle.

#### BRONCHO-PNEUMONIA.

Whatever the etiology of broncho-pneumonia, whether it is a primary or a secondary disease (the text books say it may be either), the pathology is that of the extension of an exudative inflammation from the bronchi, and bronchioles. First there is simple engorgement of the capillaries of both pulmonary and pneumonic circulations, which is very marked; then follows a swelling and exfoliation of the epithelial lining of the bronchioles and air cells, and exudation of serum, which may contain fibrin, but usually does not. Leucocytes pass into the air cells by diapedesis.

This inflammatory process passes along the bronchi, and through their walls, affecting the air vesicles adjacent, whether terminals of the diseased bronchus or not. The terminal air cells are affected from a bronchus if the inflammation extends that far, which is often the case in a well developed



broncho-pneumonia. When the terminal cells are not affected, they may collapse or not, depending upon whether the contained air is removed.

Engorgement, red and gray hepatization, and resolution occur in broncho-pneumonia, but not in such well-marked routine, not so well defined, nor so regularly as in lobar pneumonia. The exudate does not solidify, owing to the lack of fibrin.

Near the diseased part, the lung shows compensatory emphysema—a dilatation of the air cells, with atrophy and rupture of parts of their walls and the loss of

disturbances. The vessels are enlarged, and surrounded by leucocytes which are infiltrated into the tissues, the walls become swollen and edematous due to the exudation of serum, and the connective tissue and epithelial cells begin to swell and become somewhat granular. The process extends into the air cells adjoining, which, with the bronchi, are filled gradually with a mucoid serum containing the exfoliated fatty and granular epithelial cells in great numbers, compared to lobar pneumonia. Leucocytes and a very small number of erythrocytes, also collect in the exudate.

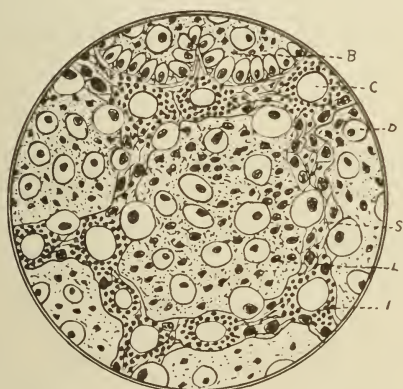


Fig. III Broncho-pneumonia. B. Bronchiole.  
C. Capillary D. Desquamated Epithelium  
S. Septum L. Leucocyte I. Infiltration.

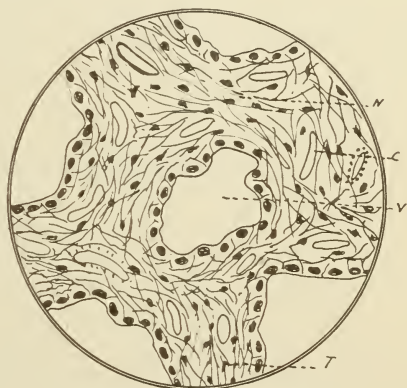


Fig. IV Fibroid Pneumonia. C. Capillary.  
N. New-Formed Connective Tissue  
V. Air Vesicle T. Connective Tissue Cell.

their elasticity. The adjacent pleura is thickened and shows minute hemorrhages, caused by the excessive engorgement. These hemorrhagic areas, together with the close proximity of diseased and healthy lung, give the whole a mottled appearance.

The lower lobes on the posterior aspect, are the usual seats of disease in the commencement of the affection, but the anterior aspects of the upper lobes are often the site of selection; however, any or all lobes may be involved to a greater or less extent.

Microscopically the epithelial walls of the bronchioles first show inflammatory

The same microscopic field showing the conditions just described may show some apparently normal lung tissue, some collapsed, and some emphysematous.

Resolution takes place quite rapidly by means of the blood and lymph streams and by expectoration, the mass being softened and thinned by fatty degeneration and the action of proteolytic enzymes, formed from the broken-down leucocytes. The epithelium is regenerated on the denuded walls and recovery is complete. Owing to the presence of secondary purulent infection pus may often be demonstrated in the lung in the

later stages, contrary to the rule in lobar pneumonia.

Resolution may also be delayed in broncho-pneumonia, and in this case there is a fibrous tissue deposit after the manner of all inflammations, leading to chronic fibroid pneumonia, to be considered very briefly.

#### CHRONIC FIBROID PNEUMONIA.

Chronic fibroid pneumonia, or sclerosis of the lung, is the formation of new connective tissue in the lung, the thickening of the septa, and closing or obliteration of the air cells. This connective tissue contracts, binds the air cells together, collapses and obliterates them,

and produces a hard sclerosed mass. Unresolved exudate in the bronchi and air cells becomes organized by the proliferation of embryonic connective tissue cells and helps in this process of sclerosis.

These sclerosed lungs are hard and elastic, contracted to surprisingly small sizes, and difficult to cut. The undiseased lung and lobes show excessive compensatory hypertrophy, even forcing the mediastinal contents, heart and great vessels out of their natural location. The chest wall over the affected area is sunken in and the lung itself is of a gray color. The pleural sac may be entirely obliterated, but if not, the pleura is greatly thickened and hardened.

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### INDICATIONS FOR ENUCLEATION\*

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C. R. ELWOOD, M. D.,  
Menominee.

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The removal of an eye is a subject of grave consideration in the mind of the patient as well as the physician. It ranks in the lay mind with the major operations, such as the removal of a limb, not only as a matter of sentiment, but also in the scale of damages allowed by accident insurance companies, and also by the courts in suit for the payment of damages.

The loss of visual range over a segment of approximately 60 degrees, and the resulting deformity, are factors in the production of the unwillingness of the patient to submit to the operation, and must be met by convincing reasons on the part of the medical attendants. As medical advisers, we must consider these important questions in all phases

and endeavor to avoid error, either through being too radical or ultra conservative.

Enucleation may be performed for the relief of intolerable suffering in a hopelessly blind eye, to check the process of malignant intraocular growth, as glioma of the retina in a child, for cosmetic reasons, for freedom from discomfort caused by diseased eyes that have long been blind, and last and by far the most important, for protection of the other eye.

Herman Knapp reports the case of a patient who upon leaving the hospital after the removal of the second eye, stated he was now happy that he could experience relief from pain which had been unbearable for years from glaucoma, and in which case the pain was slowly but steadily sapping the patient's

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\*Read before the Upper Peninsula Medical Society, at Escanaba, 1906.

strength. The removal of the worthless eye resulted in greatly increased physical comfort and general improvement.

Glioma of the retina, probably the most frequent intraocular malignant condition for which enucleation is performed, is met with most frequently in babes and young children, is often unilateral and the only treatment of service (and even this offers slight promise) is prompt enucleation. This condition I have met with but twice in my practice and I am not anxious for further experience. If seen when the pupil first presents the glistening pearly white reflex, the amaurotic cat's eye, enucleation and later evisceration may save the child, but the prognosis in these cases is always unfavorable—recurrence or metastases usually destroy the patient.

To those to whom the sacrifice of the eye for cosmetic reasons seems hardly justifiable, I wish I could present a picture of a former resident of Menominee, an intelligent, fine looking young lady, excepting for the horrible disfigurement caused by bupthalmus or ox eye. A well fitted Snellen greatly improved her appearance.

The possession of an eye, blind from disease, is often a great handicap to the artisan who wishes to obtain employment, as large concerns do not wish to incur the additional liability to which an employee with but one eye may subject them. The modern Snellen or the Shell, fitted after a Mule's operation, will often enable the unfortunate who has lost one eye to conceal his deformity and thus save himself this handicap.

The real consideration of the subject of the "Indications for Enucleation" resolves itself, however, into the consideration of the prevention and treatment of that most dreaded of all dread diseases to the oculist, sympathetic ophthalmia. The pathology, symptomatology and treatment of sympathetic ophthalmia is in itself sufficient for a symposium,

and I will not attempt more than a brief resume, but let it suffice to say that the disease steals upon its unfortunate victim like a thief in the night, and he is often not warned of the approaching danger by the premonitory symptoms of photophobia, ciliary congestion, lacrimation and asthenopia, despite the statements which are still contained in many text books.

Whether the disease is conveyed to the fellow eye through the optic nerve trunks, via the chiasm through the intervaginal and subdural spaces, or along the vessels penetrating the eye and passing through the orbit to the cranial cavity, are open questions, but the consensus of opinion, at present, is that the disease is the result of the migration of the infection, probably bacterial, from the exciting to the sympathizing eye and not through irritation of the ciliary nerves. Gifford's three cases in which there were no other symptoms than impaired vision and deposits on the posterior surface of the cornea in the sympathizing eye, would argue strongly against the ciliary nerve theory.

Usually the entire uveal tract is involved, taking the form of a plastic irido-cyclitis, serious irido-choroiditis or a choroido-retinitis. The prognosis is essentially grave and relapses are frequent, although one's efforts may be first rewarded with apparent partial success.

Gifford, at the Columbus meeting of the American Medical Association, reported six cases of true sympathetic ophthalmia, the first symptoms of which were gradual loss of vision in the good eye and the presence of minute deposits on the posterior surface of the cornea, the latter being apparent only to the skilled observer. Although these cases were seen under most favorable conditions, even these mild symptoms did not occur until too late for enucleation of the exciting eye to check the disease.



This indicates the importance, whenever possible, of daily testing the vision in cases in which there is danger of sympathetic ophthalmia, but in which it seems possible to avoid enucleation of the injured eye, or where it is refused.

Inasmuch as sympathetic ophthalmia, when once established, offers a very unfavorable prognosis, the principal hope is in prophylaxis, and the only prophylactic measure worth consideration is enucleation, or one of its substitutes, in cases in which there is danger of its development.

Concerning the substitutes for enucleation, I have of late years found little necessity for anything different from the operation as advised by de Schwinitz. This consists in the usual operation of excision, after which the ends of the tendons of the opposing extrinsic muscles are sutured together. A well fitted Snellen over such a stump gives as satisfactory a result as would be desired. Indeed Snellen's reform eye fills the orbital cavity so satisfactorily and moves so easily that simple excision, saving all conjunctival and extra ocular tissue possible, gives a very satisfactory result.

There is, however, one exception to this rule, viz: when enucleation is necessary for a child. Where the eye of a young child is removed the intraorbital pressure and support necessary for the development of that side of the face is gone, resulting in slight asymmetry. To remove this objection it has been my custom recently, to perform the Mule's operation along the lines advised by Dr. F. C. Todd. This consists in complete evisceration of all intrascleral tissue leaving the sclera a hollow bowl shaped cavity with a white shining inner surface, after which it is thoroughly cleansed with a swab wet in pure phenol and then dried. A glass or gold ball is then inserted and the cavity closed by scleral and conjunctival sutures. Care should be taken in the selection of the

ball, as one too large, will crowd itself out, while one too small acts as a foreign body, by rattling about, as it were, in the scleral cavity and may be expelled. By placing the scleral and conjunctival sutures at right angles to each other, I have yet to have the annoying experience of expulsion of the ball as reported by some operators. Those who have done this operation for years are able to demonstrate that Mule's operation avoids that asymmetry of the face which is an objection to enucleation in childhood.

When there is any especial danger of sympathetic ophthalmia, I do not believe we are justified in considering for one moment any substitute for enucleation. Certainly none of them is safer, and if there is any possibility that they are not as safe prophylactic measures, we certainly cannot afford to take any chances.

The following indications for enucleation as prophylactic to sympathetic ophthalmia are in general those of Swanzy, and represent the published opinions of most authorities.

(a) "An eye with a wound so situated as to involve the ciliary region, and so extensive as to destroy the sight immediately, or to make its ultimate destruction by inflammation of the iris and ciliary body reasonably certain should by all means be enucleated."

I was very much surprised during some post-graduate study in an eastern hospital, to watch the care with which they had tried for weeks to save an eye hopelessly blind from injury involving the ciliary region, and upon my return put the doctrines of ultraconservatism into practice somewhat to my sorrow. I was visited by a patient who had received a severe cut across the eye, but with such an instrument that there was little danger of infection. Against my better judgment I thought I would try this conservative treatment and sutured the scleral wound after excising all in-



carcerated iris. Repair was by first intention and apparently complete, but the injury to the ciliary body so impaired the nutrition of the eye that it subsequently became atropic and a greater disfigurement than a well fitted Snellen, to say nothing of the longer time involved in treatment and the danger of subsequent sympathetic ophthalmia to which this child was subjected.

The case, which has aroused considerable public interest on account of a home newspaper's attitude in the matter, was of this type. The patient, a boy of five years, was cut across the eye from sclera-corneal margin on one side to the other, a very small portion of the ciliary body being involved, but there was extensive incarceration of the iris. The eye repaired from the injury and I did not see the patient at all until the end of the fourth week. The area involved was such that in view of the fact that the child was hopelessly blind in this eye and the parents ignorant and indifferent concerning treatment, I urged enucleation. They did not accept this suggestion, and the next time I saw the child he had had sympathetic ophthalmia for almost two weeks, during which time there had been one or two days during which he had been practically blind. Enucleation was now insisted upon, and after a few days permission obtained. The remaining eye has subsequently cleared considerably, although there is great danger of relapse, as a plastic irido-cyclitis was already established, and with the iritic adhesions present there is constant irritation of the bound down iris. In this case there has been practically no treatment, but the enucleation, and although I do not approve of this course, removal of the exciting eye alone resulted in relief from pain and photophobia, with greatly improved vision.

It is not necessary that the wound be in the ciliary body to excite sympa-

thetic ophthalmia. I recently saw a prominent citizen of southern Wisconsin, who is threatened with total blindness, and for whom the most that is promised is ability to get around and care for himself. In this case the sympathetic disease was the result of a perforating corneal ulcer. There had been considerable pain in the sympathizing eye, but the most important symptom was gradual and constant impairment of vision.

(b) "An eye with a wound in the ciliary region, already complicated by severe inflammation of the iris or ciliary body, even if the sight is not wholly destroyed or the eye containing a foreign body which judicious efforts have failed to extract and in which severe iritis is present, even if the sight is not wholly destroyed, should be removed."

I have had several cases under this subdivision, the most interesting of which was a farmer from Amberg, Wis., who, while chopping wood, was struck in the eye by a chip. This was immediately removed, but the patient became blind in this eye and suffered severe pain. A perforating wound could be readily seen through the cornea, iris and lens, and as the eye was totally blind and intensely painful, enucleation was advised. The small sliver seen in the anterior chamber in the specimen I present was found in the middle of the vitreous chamber, but unfortunately displaced from there to where you now see it, through manipulation in mounting. There are very few cases of this character on record, but it demonstrates the force with which so small a foreign body as a splinter of wood can be driven. I have had several cases of iron splinters in the interior of the eye, in which enucleation was ultimately necessary, but this is my only experience with so small a piece of wood.

I have at present under observation a miner who may, and I believe has, a

foreign body in his vitreous chamber, but I have not suggested enucleation. He has a traumatic cataract which is being removed by discission. Enucleation is contraindicated in this case because he has good light projection through his opaque lens. There is no inflammatory reaction in either eye; he has good vision in the remaining eye, and his physician is carefully watching the sight in the uninjured organ. Should vision become impaired it would be a signal for immediate investigation. Then should the injured eye be found tender over the ciliary body and there be punctate deposits on the posterior surface of the cornea of the better one, the safest course would be prompt enucleation of the injured organ, unless sympathetic disease is already established and vision in the sympathizing eye much reduced, in which event there is a difference of opinion as to the better course to follow. There is a case on record in which enucleation of the injured eye was refused after sympathetic ophthalmia had become established, and it ultimately had better vision than the organ involved secondarily. As Gifford states, this is no proof that the sympathizing eye would not have had still better vision had the one causing the trouble been promptly removed. These cases must be decided upon their individual merits, and I hope to be relieved of the responsibility of deciding upon the removal on an eye with some vision which has already excited sympathetic inflammation in its fellow.

(c) "An eye, the vision of which has been destroyed by plastic iridocyclitis, or one which has atrophied or shrunk, providing there are tenderness on pressure in the ciliary region and attacks of recurrent irritation, or even without waiting for signs of irritation, such an eye should be removed." This is true not only because of the great danger of sympathetic inflammation, but also be-

cause of the additional comfort a patient obtains from the removal of a permanently functionless, dead organ, a constant source of discomfort as well as risk to its fellow.

Some years ago I enucleated such an eye, which gave no evidence of sympathetic ophthalmia, but which was hopelessly blind and had been for several years. The patient remarked when he was leaving the hospital that he had no appreciation of the discomfort caused him by the blind eye until he was rid of it, and I have recently enucleated another such an eye for a patient who had been burdened with it for many years, simply because of his sentimental objection to sacrificing a useless part of his anatomy for the safety of a remaining portion.

(d) "An eye whose sight has been destroyed, even though sympathetic inflammation has begun in the other eye, in the hope of removing the source of infection and thus rendering treatment of the second eye more efficacious, should be removed."

(e) "An eye in which the wound has involved the cornea, iris or ciliary body, either with or without injury to the lens, and in which persistent sympathetic irritation in the fellow eye has occurred or in which there have been repeated relapses of sympathetic irritation, should be removed, and an eye whether primarily lost by injury or in a state of atrophy, associated with symptoms of sympathetic irritation of the fellow eye, should be removed."

Lacrimation, photophobia, asthenopia, and pain on pressure over the ciliary body of the injured eye, while symptoms of irritation only, are sometimes precursors of inflammation and as such an eye as just described is useless at best as an organ of vision, it is the safe course to remove it for the safety of its fellow—at any rate that would be the treatment I would want were I the pa-

tient. An atrophic eye is essentially a dead one and much more disfiguring and more dangerous than a Snellen over a good stump.

Sympathetic inflammation is to be differentiated clearly from sympathetic irritation. In the latter we have a functional disturbance presenting a series of symptoms comprising blepharospasm, lacrimation, photophobia, asthenopia and tenderness on pressure over the ciliary region of the exciting eye as I have repeatedly stated, and these, while not symptoms of the more serious disease, are certainly valuable danger signs, and when they are present, the physician should be constantly on his guard and insist upon most carefully and frequently watching for impaired vision or deposits on the posterior corneal surface.

It has for many years been thought that an eye lost through panophthalmitis would not produce sympathetic inflammation in its fellow, the opinion being

held that the disturbance in panophthalmitis was so profound as to effectually seal all possible avenues of communication between the two eyes. Wurdemann has recently reported one case in his own practice and three in the practice of others, in which serious sympathetic ophthalmia has resulted from an eye long lost through panophthalmitis.

This dreaded disease comes on any time after the third week following an injury to the exciting eye, most frequently during the fourth to sixth week, although there is no time limit, many cases being reported occurring years after the original injury.

Enucleation, or one of its substitutes, is certainly a most valuable surgical procedure to be employed with neither ultra conservatism or too pronounced radicalism, but when properly employed will save many a sufferer from humiliation and embarrassment, intolerable pain, and most important of all, danger of the loss of the remaining eye.

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## THE CURSE OF MISCARRIAGE TO OUR AMERICAN WOMEN WITH A FEW SUGGESTIONS IN THE WAY OF A REMEDY\*

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F. J. W. MAGUIRE, B.S., M.D.,  
Detroit.

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My attention was first attracted to this subject by the large number of unfortunate women who have consulted me during the past few years, requiring surgical relief from the terrible ravages following abortion. These were largely recruited from so-called respectable married women; they did not even have the excuse of the unfortunate girl deserted by her lover, who, fearing to face the scorn of the world, is sometimes driven to this desperate remedy. It ap-

pears to me that a discussion of this subject should be from both the moral and scientific standpoint, for undoubtedly a great many of the ills surgeons are called upon to remedy, are due to depraved morals. The laity is ignorant of the fearful results following abortion. Popular education along these lines through the medium of magazines that reach the public, is necessary. The public do not read medical journals. The country must look to our profession for instruction along this line, and, if we continue silent, we fail to do our duty.

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\*Read before the Section on Obstetrics and Gynecology at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.



The physician, more than any one else, is familiar with the statistics of this abominable crime, for, is he not called upon to help remedy its evil effects?

I believe it remains with the physician to suggest a remedy; and furthermore, to do all in his power to make that remedy effective. I am sorry to say that there are still quite a few men who disgrace our noble profession by lending themselves to this lowest form of murder—killing the defenseless fetus in utero, but I am happy to say that the majority of those engaged in this nefarious practice are not physicians, but are men and women of depraved nature and habits. That men and women draw their livelihood by depriving others of life, seems incredible, but it is none the less true and we have plenty of evidence to prove it.

Take for example advertisements in our daily papers and magazines of Pennyroyal Pills for Women, etc. All these so-called remedies are guaranteed to regulate the catamenia, in other words, are guaranteed to kill the living fetus. We cannot help asking ourselves why people marry only to reverse the laws of nature. Surely the gratification of passion is only incidental to this state, the object of which as ordained by God, being to perpetuate the human race. Some will tell you "that children are a great care," that it costs so much to educate them. I cannot deny that children are a care, but is that any reason why they should be murdered? As to the expense of educating them, what about our boasted educational system of free public schools? The expense of raising a family is not as great as some would make you believe. It is true that sacrifices must be made by the parents, but look at any family of well-bred children surrounding their parents and ask yourself are not the parents well repaid for any sacrifices they may make, and on the other hand look at the childless

home and tell me if the gratification of a few selfish pleasures repays the parents for the loss of children and the loss of the true atmosphere of a home. Our sympathy goes out to the childless couple when their condition is due to nature, but we can feel no sympathy for those who have brought it upon themselves.

I think one of the saddest experiences in my professional life was in being unable to offer any help or consolation to a barren wife, who through an abortion in early married life had totally destroyed the organs of reproduction. Look at the large families reared by our grandparents, they surely had smaller incomes than the average to-day. If they practiced the habit of abortion so prevalent to-day, many of us would never have been born. Again compare the health of our grandmothers with the young married woman of to-day, and you will find the grandmother had better health, notwithstanding her large family and the attendant care it required. Surely this refutes the argument that mothers of large families have poor health. The facts prove the reverse to be true.

Some women complain of the suffering of childbirth. I can only say that the joy to be found in the new born will repay the mother a thousand fold. I hope the woman of to-day is not a coward; can she not brave the pains her mother suffered for her? If she cannot or will not, then let her not assume the responsibilities of married life. The habit of abortion, (for it is becoming a habit) is not limited to the so-called "Four Hundred," but runs down the social scale to the washer-woman. They all offer a pretext for not having children, but they have no moral or scientific reasoning to back up their excuses. A learned judge in our city stated not long ago that the majority of people who came to his court seeking divorces were childless, and I am inclined to believe



our chancery judges in other states will corroborate him in this statement.

It is an open question which of the two, husband or wife, is most to blame for the crime of abortion. It is a man's God-given instinct, if I may so use the term, to wish to perpetuate his name and race and the whole institution of marriage, both morally and legally is based on this presumption. In a legal sense, marriage is a contract sworn to by both the man and the woman by which they are allowed to assume a sacred relationship and with it the responsibilities that are inherent to that relationship. Surely it is a grievous crime to break their solemn oaths, to violate their contract and their crime is made still worse by the fact that in breaking it they are guilty of a still more terrible one, that of murdering an unborn fetus. I cannot realize how a man who has any love for his wife, will permit her to jeopardize her health and often her life by having a criminal operation performed. The desire for a small family is frequently with the wife, but it is the husband's duty to see to it that he does all in his power to prevent her committing this abominable crime.

The husband usually having the authority in the home should use it, not to force his wife to commit this horrible crime, but rather to reconcile her to her condition. A great deal of the blame, however, rests with the woman. has selecter her for this sacred mission and in doing so, he did not order her to bring one or two children into the world and then kill the rest before they were born. Our ideal of a woman, and espe-

cially of a mother, endows her with all tenderness for children and when she looses these attributes and debauches her sacred calling and becomes a murderer, surely our respect for her is gone, and the homes of our country are in grave danger.

The remedy: The first law that should be remedied is our marriage law. Under existing conditions, mere girls and boys enter this most sacred and responsible relationship, without any thought whatever of the burden which belongs to that state. The divorce law, sapping this great American republic at one end and our contracted families at the other, will, before the next two decades pass, place this country in the hands of a foreign population, and the words, "American born" will have become almost obsolete.

My object is introducing this subject at this meeting is to feel the pulse of my brother practitioners as to the advisability of having a bill introduced at the next meeting our our State Legislature, making it a crime for anyone to approach a physician and ask him to become a party to this heinous crime of abortion. Under our present law, it is no crime to ask a physician to perform abortion, thus placing our noble profession in a category with an ordinary hangman, a law of this kind will go a long way towards stopping this vicious practice and at the same time save the profession from this terrible insult. We will thereby show that the profession is not so ready to perform abortion as was suggested recently at the meeting of the Wayne County Medical Society.

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Avoid introducing a uterine sound in examinations when pelvic inflammation is suspected. It may set up a parametritis.

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Metal crochet needles are often of great service in removing retained sutures from the depths of sinuses.

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In seeking a cause for torticollis, don't fail to examine the teeth.

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Unless some other cause is evident, don't fail to examine for signs of tabes when an adult complains of pains about the waist, in the back or in the lower extremities.

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JANUARY

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### Editorial

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During Nineteen Hundred and Six what was accomplished by our profession? This is a question well worth discussing. We should now and then pause to consider the progress which is being made, the questions which are uppermost, and the tendencies which will go far towards determining the future.

It must be evident to all that the practice of medicine is yearly becoming more exact and more scientific. This was never more clearly demonstrated than during the past year, and the advances which were made were both important and substantial. The enthusiasm shown within recent years, by the profession, for the improvement of sanitary conditions and especially for the education of the laity along important lines, has been much in evidence during the year just closed. Moreover, the efforts of the profession to improve its own condition and uplift its members, have produced excellent results during 1906. It is along these three broad lines, scientific, altruistic, and politic, that progress has been made.

The most important scientific work during the past twelve months has been in the domain of serum therapy. While the original observations on opsonic therapy were made previous to the past year, nevertheless, nineteen hundred and six saw the theory quite extensively put

into practice in various parts of the world, so that this great advance in practical therapeutics may be said to have been begun in that year. With the exception of Wright's theory, the most discussed themes in scientific literature were Bier's congestive hyperemia and the physiology of heart block. In surgery, there were many live topics, but no epoch-making discoveries. Nevertheless, the advance there was real and important, so that it is safe to say that, taking the world at large, more surgery and more successful surgery was done in 1906 than ever before. To the sciences allied to medicine, many important contributions were made during the year.

A most important tendency of the times is the activity of our profession in the matter of educating the people of this great country in matters pertaining to health. We are just awakening to the sense of our duty toward our fellowmen and a most important awakening it is, for if the medical profession does not teach and lead the way in the great health problems which are to be solved, others will attempt to do so and public sentiment will be awry. Unless public sentiment and public knowledge are put upon a higher plane, the laity will continue to be influenced by such bigots as Fra Albertus, the "Pericles" of the *Philistine*, whose anti-vaccination tirades, etc., are doing an immense amount of harm. When the manager of the Detroit United Railway says, according to the public prints, that street car ventilators are quite unnecessary and the statement goes unchallenged, the medical profession is not doing its duty. We are only at the beginning of this campaign of education, yet much has already been accomplished in the spread of knowledge concerning tuberculosis and a good start made in public instruction in sexual hygiene.

The great crusades against medical

frauds, of all kinds, have been persistently pushed during the year. The agitation against patent medicines and the successful war for a pure food bill have enlightened the public in a great measure, so that the people understand these matters as never before.

The American Medical Association has enjoyed the most prosperous year in its history. Its membership has increased steadily and its Journal has so improved that every physician in the country having a grain of patriotism, should be proud of it. There never was before such a meeting of the association as the one at Boston, where 4,700 physicians were registered. The Toronto meeting of the British Medical Association was also an important event of the year.

Fees for life insurance examinations, the evils of contract practice, the teaching of medical ethics, and the vexing details of reciprocity are some of the topics in medical sociology which have received attention.

The number of medical students in the country has slowly but steadily decreased since 1903. In 1906, they were fewer by about 800 than in the previous year. Standards are undoubtedly being advanced—in reality, as well as in the pages of the announcements. The dedication of the new medical buildings at Harvard marks an epoch in equipment for medical teaching.

What about ourselves, here in Michigan? Of the 4,750 physicians in the state, 1826 were paid up members for the year, a substantial increase over 1905. At the annual meeting there was a larger registration than at any session since the one in Detroit, in 1903. The entertainment by the Jackson County Society was lavish and important work was done.

With some lamentable exceptions, the enthusiasm in the various county societies has been evident and the reports of

the secretaries have been, on the whole, encouraging. An event of unusual interest was the visit of Dr. J. N. McCormack, who found much to commend and not a little to criticise in our organization. It is yet too early to judge of the results of his meetings, but if we accomplish one-half the ideals set before us by that genial optimist, 1907 will be a banner year.

A review of the past year, even a short and imperfect one, would be lacking were no mention made of those who have left us never to return. Our society has sustained a great loss in the death of William James Herdman, who for the past year, has so ably represented the first district on the Council. There have been fewer deaths than usual among the prominent medical men of the world. Mention should be made, however, of such eminent Americans as Dunning, Henrotin, Fowler and Doremus. England lost Beale, the clinician; Germany, Nitze, the inventor of the cystoscope; de Wecker, the ophthalmologist, and Schaudinn, the discoverer of the spirochaete pallida; France, the famous professor of legal medicine, Brouardel.



**Medical Liars** are of various kinds, but because of the increased standards of education and the general uplifting due to the improved morale of the profession, they are yearly becoming fewer in number. At least this is the view which is expressed by Carstens in his presidential address before the Mississippi Valley Medical Association. We hope and believe that this optimistic view is correct.

Speaking at the annual meeting of that association at Hot Springs, last month, Dr. Carstens referred to prevaricators of various kinds, mentioning especially the pious liar, the specialist liar, the fee-splitting liar, the case-reporting liar, the statistical liar and the recommendation-for-pay liar.



To name them is to instantly recognize them, but they are so well described in the address that a few excerpts will prove interesting.

"The great men of the medical profession are working unselfishly for the good of the race. The moral tone has been wonderfully elevated. The liars in our own organization have been diminished wonderfully and with a higher standard we hope will soon eliminate them entirely.

But there are still some liars in the medical profession, and in my experience there are few among the young members of our calling. Some of these liars are of the pious order. They regularly attend church. They are very busy, they cannot get there until just when the prayers start. They can only walk half-way down the aisle and stand so that the whole congregation can see them until the prayer is finished.

Another of these pious varieties also goes to church late and walks to the front pew and drops down like a bag of flour, with the air of utter exhaustion. Poor fellow, he works so hard!

Another variety of liars is the man who claims to be a specialist. If he claims to be a surgeon, he treats typhoid fever and pneumonia if the patient is wealthy; he even resorts to treating measles and cholera infantum if the grandfather is a millionaire. Some so-called specialists often take the bread and butter out of the mouth of the general practitioner by attending a case of confinement, because they brought the mother into the world, or give some other excuse.

A most annoying kind of liar, that some of us meet with, are those who bring their wife, daughter, mother, or brother to a specialist who takes great pains and delight in relieving them, of course, without accepting a fee. After six months or a year the same physician brings in another patient who is very poor and cannot pay a cent to the specialist, but his good intention is appreciated. Another year or two he will probably send another patient who pays a very small fee. After a little while, however, the specialist finds that his friend takes a patient to his rival who pays a commission, and in a little while takes another. When formerly he had only one case a year all at once he has four or five cases a year that require treatment by a specialist, and where formerly his patients were so poor, all at once his patients become wealthy. They can pay good fees.

Another variety is one who always gets up,

when a peculiar and rare case is reported, and says that when he was a practitioner up at Fox Creek he had exactly such a case. Of course, men with large experience see all kinds of cases, and when such a statement is made it is not always a lie, but some who say this so often are soon marked.

There are other liars, who do eighty-seven operations of vaginal hysterectomy for cancer without a recurrence; or some who had three hundred and nineteen cases of pus tubes without a death. We know them all. We know some of the liars who, for a reasonable compensation, will write and recommend loudly the wonderful efficacy of the compound extract of cats' livers.

And others who have cured so many hundred cases of consumption with that wonderful new preparation manufactured by the Q. X. & Co., and there is that other liar who has been able to abort a case of typhoid fever and bring the patient around in three days.

Then there are those who call every case of sore throat, diphtheria, which they cure in 24 hours, before they have had time to report it to the health officer. There is that other dangerous and ignorant liar who never has a case of diphtheria, but only quinsy and sore throat.

Fortunately, the liars are getting fewer. The little humbugs and practices are recognized by the profession. In the county society is the place where everybody finds his exact level and the liars are spotted and they soon reform or cease to be of importance."



The Committee on the Study and the Prevention of Tuberculosis has been organized and begun work. The following bulletin has been issued and should receive attention at the next meeting of each county society.

#### BULLETIN NO. 1.

January 1, 1907.

#### Committee on the Study and Prevention of Tuberculosis

OF THE

#### MICHIGAN STATE MEDICAL SOCIETY.

To the Officers and Members of the County Medical Societies:

Your attention is respectfully called to the following resolution adopted at the Forty-first

Annual Meeting of the Michigan State Medical Society, held at Jackson, May 23, 24 and 25, 1906:

"Whereas, the study and prevention of tuberculosis is one of the greatest problems to be faced and solved largely through the agency of the medical profession; therefore, be it

Resolved, That a permanent committee, to be known as the "Committee on the Study and Prevention of Tuberculosis," be established by the Michigan State Medical Society, said committee to consist of five members to be appointed by the President of the Society. The duties of said committee shall be to report annually, and from time to time through the columns of the State Medical Journal, on the year's progress along the lines of study, prevention, treatment, and cure of tuberculosis, together with economical and sociological aspects of the disease; to place this information before the County Medical Societies; to co-operate in every way possible with National, State or Local societies and associations for the study and prevention of tuberculosis, and with all local, state and national Boards of Health, to secure the attainment of the same ends—the prevention, relief and cure of tuberculosis."

The committee appointed in accordance with this resolution is now organized and ready to take up the work assigned. Owing to the importance and wide range of interests covered by the resolutions, it was deemed advisable by the President and Secretary of the State Medical Society to increase the committee from five to seven members.

The members of the committee as appointed and the division of labor tentatively suggested for effective work are as follows:

Dr. W. E. Coates, Chairman, Onkama.

Organization work; Societies for the Study and Prevention of Tuberculosis; sanatorium treatment.

Dr. George Dock, Ann Arbor.

Diagnosis; general treatment; medicinal, hygienic, dietetic.

Dr. Casper K. La Huis, Kalamazoo.

Organization work in Southwestern Michigan; special work to be assigned.

Dr. E. L. Shurly, Detroit.

Therapeutics of tuberculosis.

Dr. P. M. Hickey, Detroit.

"X Ray" in diagnosis; organization work.

Dr. Alden H. Williams, Grand Rapids.

Pathology of tuberculosis; organization work.

Dr. F. D. Harkin, Marquette.

Organization work in upper peninsula; special work to be assigned.

During the year 1905, 2,656 deaths were reported in Michigan from all forms of tuberculosis by the Michigan State Board of Health; from January 1, 1901, to December 31, 1905, a total of 12,560 deaths occurred, an average of 2,512 deaths per year for the five-year period from tuberculosis—a disease which modern medical science says "can be prevented," "can frequently be cured" if recognized early and proper treatment be instituted.

What can we, members of an organized medical profession, do as individuals to stop the ravages of the "Great White Plague" in Michigan—what can our County Medical Societies do—what can our State Medical Society do? These are the problems confronting the Committee on the Study and Prevention of Tuberculosis of the State Society.

Whatever is done in Michigan should be done through the united and organized medical profession asserting itself as a leader and teacher of the people—teaching the people in simple language the cause, methods of prevention, restriction and treatment—in this way, and only in this way, can we as a profession rise to the full nobility of our high calling.

As a working basis, subject to modifications from time to time, the Committee on the Study and Prevention of Tuberculosis requests the co-operation of the officers and members of the County Medical Societies, also the public at large, in the following campaign against tuberculosis in Michigan.

### Plan of Campaign.

Each County Medical Society is requested at the earliest opportunity to appoint a special County Committee on the Study and Prevention of Tuberculosis, or to assign this work to the existing Committee on Legislation and Special Work, if a special committee is not desired. Every committee so appointed is requested to communicate at once with the chairman of the State committee.

The work outlined for each County Committee is as follows:

1. Obtain an accurate census during the month of March, 1907, of the recognized cases of tuberculosis actually under treatment by members of the local societies or by practicing physicians of

all schools in the country or counties where the society is located. These figures are desired to obtain accurate data on the number of recognized cases in the State. The statement is frequently made that "15,000 to 30,000 cases of tuberculosis exist in the state"—it is desired to prove or disprove this statement, if possible.

2. Arrange that the County Medical Society devote one or more meetings to the medical discussion of some phase of the tuberculosis problem during the months of January, February, March or April, 1907; reports of meetings and topics discussed to be sent to the State Committee, also a digest of papers, if possible.

The topics suggested for these meetings to be as follows: Early diagnosis, tuberculin test, laboratory diagnosis, "X Ray" diagnosis; heredity in tuberculosis, tuberculosis in childhood; surgical tuberculosis; tuberculosis of various organs, lungs, pleura, lymph glands, liver, kidneys, bladder, supra-renal glands, uterus, tubes and ovaries, peritoneum, pancreas, spleen, heart, brain, skin and other organs and tissues; occupation and tuberculosis, e. g., farmers, housewives, clerks, factory hands, miners, mechanics, engineers, etc.; tuberculosis among the rich, the middle classes, the poor—influences of environment, intemperance, social status and financial conditions bearing on the tuberculosis problem; climatic, home and sanatorium treatment of tuberculosis.

3. Arrange for a series of public meetings under the auspices of the County Medical Society for the presentation to the public at large of the tuberculosis problem in popular lectures; these meetings to be held during January, February, March and April, 1907, and continued from time to time.

Topics to be discussed at public meetings: The causes, direct or indirect, of tuberculosis; methods of prevention, destruction of sputum, care of eating utensils used by patients, disinfection of handkerchiefs, bedding, clothing, rooms, houses, etc., of patients; promiscuous kissing, expectoration, flies, bedbugs, cockroaches, etc., as means of spreading infection; bad housing conditions, poor ventilation, improper and badly cooked food, fear of fresh air and sunlight in the homes as indirect causes of tuberculosis; treatment through proper feeding, rest, open air, avoidance of patent medicines and excessive drugging with cough syrups—that there is no short cut to recovery through the use of medicine; months and years of most careful living needed to cure the disease or prolong life; thousands of cures by hygienic, dietetic methods

where disease is recognized early to be strongly emphasized; prevention of tuberculosis in the shop, factory, office, store, public conveyance, public buildings and streets.

Any public meetings so held to be held if possible through existing agencies, churches, lodges, labor unions, humane societies, literary clubs, civic improvement clubs, benevolent and charitable organizations, public and parochial schools, young people's church societies, etc.

These meetings to be addressed by medical speakers from local and outside sources, also by prominent men of the community, lawyers, preachers, priests, business men, whose word and standing would carry weight among the people.

Reports of these meetings, abstracts of addresses delivered are to be published in local newspapers of the county and vicinity—this may shock our sensibilities regarding medical ethics, but the methods of popular propaganda must be adopted by the medical profession if the people are to be taught the truth regarding tuberculosis. Newspapers containing reports of meetings are to be sent to the State Committee.

4. The County Society Committee is requested to send a list of available medical or lay workers interested in the tuberculosis problem, who are good or fairly good speakers, to the State Committee, provided these speakers would go to adjoining towns or cities to deliver addresses on tuberculosis—all legitimate traveling expenses to be paid by the society or organization holding the meetings, unless speakers are willing to meet their own expenses.

5. Information is to be furnished the State Committee as to local efforts of boards of health in cities, towns and villages to prevent and restrict the spread of tuberculosis in the territory of the county society; also data as to local provisions for caring for tubercular patients in public or private hospitals, poorhouses, jails, reformatories and penitentiaries.

6. Through the County Committee, leaflets, pamphlets and circulars bearing on the tuberculosis problem are to be distributed among the members of the county society who are requested to distribute same to their tubercular patients. These leaflets, etc., are to be printed by the County or State Medical Society, or obtained from the State Board of Health, local Boards of Health or through the agency of the National Association for the Study and Prevention of Tuberculosis.



7. Local libraries are to be requested to secure popular works on tuberculosis for public reading, e.g., "Tuberculosis and Civilization," by Huber. Any books of this nature are to be selected and recommended by the County Committee whenever possible.

8. An important feature of the work of the County Committee will be to secure the organization of a local "Society for the Study and Prevention of Tuberculosis," should local conditions warrant; otherwise, to use all existing agencies for spreading propaganda regarding tuberculosis, its prevention, early recognition and treatment.

All special Anti-tuberculosis societies formed, or existing local agencies through which work could be carried on, are to be reported to the State Committee.

9. The co-operation of the County Committee is desired in obtaining a list of articles on tuberculosis published by members of County Societies; reprints of articles printed during the last five years are especially desired, though earlier publications are valuable from a historical and often from a clinical standpoint, showing as they do the part taken by their writers in one of the world's great movements.

10. The County Committee is especially urged to support all legislative efforts directed toward the restriction and prevention of tuberculosis and for the relief of indigent sufferers from the disease through the establishment and adequate support of state or municipal sanatoria for the treatment of tuberculosis.

The erection and maintenance of private sanatoria under competent medical supervision for the care of these sufferers capable of paying for private treatment should receive the moral and professional support of the various County Committees and the members of the societies represented.

The efforts of the County Committee should be especially exerted in securing the compliance of members of the County Medical Society with the law requiring reports of all cases of tuberculosis to be made to local health officers; also to securing better and more accurate returns regarding tuberculosis as a cause of death.

The "Plan of Campaign" outlined may seem Eutopian—it cannot be carried out without the support of every officer and member of each County Medical Society; even then, the work must be carried on for years rather than for weeks and months.

Flick has said: "If the knowledge now at our disposal could be practically applied by everyone, tuberculosis could be stamped out in twenty-five years."

If this ideal is to be attained, it will only be accomplished by public education through the rank and file of the medical profession—the hand of the medical man guiding and directing the movement.

*For the Committee.*

W. E. COATES, Chairman.



**The Committee on "Contract Practice,"** provided for at the Jackson meeting of the society, has been appointed by President Stockwell as follows: T. S. Langford, Jackson, chairman; A. S. Kimball, Battle Creek; H. B. Garner, Traverse City; T. E. DeGurse, Marine City; E. H. Flynn, Marquette.



**Dr. William James Herdman**, of An Arbor, Councilor for the First District, died on Friday, December 14, 1906. By the death of Doctor Herdman, the Wash-tenaw County and the State Societies have sustained a very great loss. An obituary notice, by one of the deceased's close friends, will appear next month. Memorial exercises were held at the Sarah Caswell Angell Hall by the Medical Faculty of the University on December 17th, at 10 a. m. President Angell, Dean Vaughan and Dean Hutchings of the Law Department, spoke, and resolutions, as adopted by the faculty and the senior class, were read. The funeral services, held at the Presbyterian Church, at 2 p. m., were largely attended. The State Society was represented by Councilors Burr, Small, McMullen and Bulson and Secretary Schenck.

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## Book Notices

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**Surgery: Its Principles and Practice.**—In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL. D., Hon. F. R. C. S., Eng. and Edin., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Phila. Vol. I: Octavo of 983 pages, with

261 text-illustrations and 17 colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Per volume: Cloth, \$7.00 net; Half Morocco, \$8.00 net.

Those who have been looking forward to the appearance of the system of surgery, edited by Professor Keen of the Jefferson Medical College, Philadelphia, will not be disappointed when they receive the first volume, which appeared during the month. The work is to be complete in five octavo volumes, uniform in binding with many of Saunders' books. The contributors include many of the brightest and most active of the English speaking surgeons, for the most part writers of experience, all men of authority. Each volume will contain about 1,000 pages and the illustrations will be both original and numerous.

The first volume contains 22 chapters dealing with general surgical principles and special infections. The book opens with an excellent review of the history of surgery by Mumford of Harvard. Crile contributes 30 pages on surgical physiology, containing many new facts, both scientific and practical, not found in any other book. Blood pressure apparatus and methods receive special attention. The last chapter on wounds, also by Crile, contains his theories and treatment of shock and collapse. The newer teaching as to the uselessness or even harmfulness of strychnine, etc., in the treatment of shock—teaching, which we believe is substantiated by abundant proof—is clearly set forth.

Hektoen's chapter on infection and immunity, in scientific value, is far above the usual chapter on these subjects.

Bland Sutton writes the chapter on tumors. The text is good. The illustrations, however, of this section, are not up to the high standard of the rest of the work.

Adami of Montreal, writes a most suggestive section on inflammation, from which the reader gets many new thoughts.

Space forbids mention of the other chapters. It is to be noted, however, that throughout the book, the very latest points, such as the spirochaete pallida, Bier's hyperemia, and opsonic therapy have been included. A commendable feature is the bibliography at the end of each chapter.

If the other volumes maintain the high standard set by the first, as there is every assurance will be the case, the work will be the best English system of surgery. The later volumes will be reviewed as received.

**International Clinics.**—Vol. III. Sixteenth Series. Edited by A. O. J. Kelly, A. M., M. D. 302 pages, 26 illustrations, cloth, \$2.00. Philadelphia, T. B. Lippincott Company, 1906.

This volume contains four papers on treatment, dealing with acute pleurisy, bronchitis, dilatation of the heart and syphilis; eight papers on medicine, treating of auto-intoxications, gastro-succor-rhea, the rashes of typhoid, the irregular heart, the diagnosis of chronic joint affections, pulmonary tuberculosis, milky urine and life in the Antarctic from a medical point of view; eight papers on surgery, including the hyperemia treatment of swollen joints, surgical complications of pneumonia, inguinal hernia, inguinal hernia in the female, peritoneal adhesions, hemorrhagic diathesis complicating surgical work, surgical results following improper feeding, and disorders of the umbilicus; four papers in obstetrics and gynecology, dealing with tubal pregnancy, the use of forceps in deep transverse arrest of the head, and the pelvis of lame women; one paper in rhinology, entitled "Clinical Rhinometry: Functional Examination of the Nose;" one paper in otology, entitled "Primary Thrombosis of the Jugular Bulb;" one paper in pathology on "Leukemia and Sarcomatosis."

We have given this extended list of the contents of the volume that those unfamiliar with "International Clinics" may judge of their scope. Practically all of the papers are prepared by men of reputation and are authoritative.

**Essentials of Medical Electricity.**—By E. R. Morton, M. D., C. M., Medical Officer in charge of the Electrical Department of the London Hospital. 5x7 in., 192 pages, 11 plates and 70 illustrations. Cloth. \$1.50. Chicago, W. T. Keener & Company, 1906.

As is indicated by the title, the author has collected the main points in the theory of electrical currents and thus prepares the student for the intelligent application of the same. He has done this in a logical and systematic manner. Seventy pages are then given on the physiological action, electrical diagnosis, electricity in surgery, general therapeutics and special therapeutics. The book is a useful one for the beginner along these lines.

**A Compend of Genito-Urinary Diseases and Syphilis.**—By Charles S. Hirsch, M. D., Assistant in the Department of Genito-urinary Diseases in Jefferson Medical College Hospital. 350 pages, illustrated. Cloth, \$1.00. Philadelphia, P. Blakiston's Son & Co., 1906.

This is a new volume of this popular series, and is one of the best. The author, in covering the subjects, has not sacrificed clearness to space, as is often done in books of the kind. Its teaching is up-to-date and conservative. We believe the method of arrangement in this book is preferable to that by questions and answers, used in some of the other volumes of this series.

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**Diet in Health and Disease.**—By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Revised Edition. Octavo of 728 pages. Philadelphia and London, W. B. Saunders Company, 1906. Cloth, \$4.00 net; Half Morocco, \$5.00 net.

The new edition of this handbook will scarcely need any recommendation to the practitioner who has had previous experience of its usefulness. The work is very comprehensive, covering not only the subject of special diet for almost every imaginable special condition of health and disease from the practical point of view; but also the chemistry and physiology of digestion, the chemistry and classification of foods and beverages, and their adulterations; the methods of diagnosis by means of diet, etc. The literature of scientific research on these subjects has been carefully covered down to the date of issue, and briefly, but clearly, abstracted in such chapters as those on the chemistry of digestion and metabolism, the food value of alcohol, and other subjects concerning which new work is constantly being done and opinions are conflicting and often changed.

Certain chapters seem to the reviewer unusually complete and good—notably those on infant diet and milk modification, and on diseases in which diet is a special factor. Perhaps the chief value of the book to the practitioner will lie in the fact that it contains a collection of tables of foods, food values, special diets, army rations, etc., arranged for ready reference, such as is not, to our knowledge, to be found in any other one-volume hand-book in the English language.

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**Prevalent Diseases of the Eye.**—By Samuel Theobald, M. D., Clinical Professor of Ophthalmology and Otology, Johns Hopkins University. Octavo of 551 pages, with 219 text-illustrations, and 10 colored plates. Philadelphia and London, W. B. Saunders Company, 1906. Cloth, \$4.50 net; Half Morocco, \$5.50 net.

Into the already long list of excellent treatises in Ophthalmology this work fits admirably. It has been the author's purpose, in which he has succeeded, to present the more prevalent diseases of the eye in a manner suitable to the needs of the general practitioner; the latter has neither the apparatus nor the experience necessary for exhaustive examinations of the eye, either in health or disease, but he has need for a book which concisely presents the more simple tests of function and aids for diagnosis of diseased conditions and with the help of this work he may learn to differentiate the more serious affections from those which fall within his practice and which he should be in a position to treat competently.

The style and method of presenting the subject matter are most interesting throughout, with clearness of expression a prominent characteristic. Among the individual chapters the one devoted to general observation upon methods of examination which are available to the general practitioner and upon diagnosis are particularly good, and if the advice there contained is carefully followed, many errors in diagnosis will be avoided. Of special commendation also are the chapters on glaucoma and cataract, the differential diagnosis of which is so important. The description of iritis in its various forms anatomically and etiologically, is well arranged for a clear working understanding of the condition. The chapters on anomalies of refraction, muscular anomalies, together with that on injuries to the eye and its appendages, are excellent.

Treatment is given fully and concisely, and recommends what the author personally considers best adapted to the conditions in hand. Typographically the work is excellent, the paper, type, and especially the illustrations are all that could be desired. Altogether the book admirably fulfills the purpose for which it was intended, a clear, concise treatise of the more prevalent diseases of the eye, designed especially for the general practitioner, and as such, is to be thoroughly recommended.

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**The American Illustrated Dictionary.**—All the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry and kindred branches; with over 100 new tables. By W. A. Newman Dorland, M. D. Fourth Revised Edition. Octavo of 836 pages, with 293 illustrations, 119 of them in colors. Philadelphia and London, W. B. Saunders Company, 1906. Flexible Morocco, \$4.50 net; thumb indexed, \$5.00 net.

In preparing this dictionary, the author has attempted a middle course between the large, more



or less unwieldy lexicon and the abridged students' dictionary, avoiding the disadvantage of each. We think that he has succeeded admirably.

Besides the ordinary dictionary matter there is much information arranged in the form of tables. The illustrations are good.

The fourth edition contains some 2,000 new words, additions made necessary by the rapid increase in the medical vocabulary. Many of these words are in the domain of serum therapy.

The flexible binding is an advantage.

We recommend the work for general use.

**The Practitioners' Visiting List for 1907.**—The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil and rubber, and calendar for two years. Price, \$1.25. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

The text portion of The Practitioners' Visiting List for 1907 has been thoroughly revised and brought up to date. It contains among other valuable information a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

**The Physicians' Visiting List.**—Price \$1.00. Philadelphia, P. Blakiston's Son & Company.

This well known visiting list, which has been issued regularly for 55 years, is out for 1907. Its arrangement is such that a minimum amount of bookkeeping is necessary. The dose table has been revised in accordance with the new U. S. Pharmacopœia. It may be had to record 25, 50 or 100 patients each day.

**Saunders' Pocket Medical Formulary.**—Eighth Edition, Thoroughly Revised, Enlarged, and Adapted to the Eighth Revision of the U. S. Pharmacopœia. By W. M. Powell, M. D., Philadelphia, W. B. Saunders Company, 1906.

This is one of the most useful of the smaller formularies. It contains prescriptions from the best American authors, arranged according to diseases. A thumb index makes easy reference possible and there are sufficient blank pages to enable one to keep a list of his own favorite formulas. Much additional information is contained in an appendix, one of the best sections of which, the "Surgical Remembrancer," contains many pithy bits of advice, alphabetically arranged. Useful diet tables are also included.

**A Text-Book of Obstetrics.**—By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Fifth Revised Edition. Octavo of 915 pages, with 753 illustrations, 39 of them in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5.00 net; half morocco, \$6.00 net.

Hirst's Text Book of Obstetrics is deservedly one of the most popular works on the subject. It first appeared in 1898 and since then, there have been five editions. It has therefore been kept thoroughly up to date, each edition giving the results of new work. The teaching throughout is in accordance with the well known conservative ideas of the author. The chief changes in the edition are in the sections on puerperal infection and the toxemias of pregnancy.

Some of the factors which have contributed to the success of this book are, we think, the lucid style of the author, the systematic arrangement, the excellent illustrations and an index which makes ready reference easy.

It is undoubtedly one of the two American books on obstetrics which are the best. It is well printed, well bound and is to be recommended for both students and practitioners.

### Books Received.

A Syllabus of Materia Medica. Compiled by Warren Coleman, M. D. Third Edition. New York, William Wood and Company, 1906.

Proceedings of the Connecticut State Medical Society, 1906. One Hundred and Fourteenth Annual Convention. Edited by Walter R. Steiner, M.A., M.D., Secretary, and published by the society, 1906.

Grayson's Laryngology. The Diseases of the Nose, Throat and Ear. By Charles P. Grayson, M.D. New (2nd) edition. Lea Brothers and Co., Philadelphia. (Review next month.)

## THINGS ABOUT DOCTORS WHICH DOCTORS AND OTHER PEOPLE OUGHT TO KNOW.

J. N. McCORMACK, M. D.

Ladies and Gentlemen:—Once or twice for almost every working day for five years, I have stood before audiences of people in some part of the United States to discuss this question with them. I say discuss it with them because at the conclusion of my remarks everywhere, as I trust will be done here this evening, there has always been a frank expression of opinion from the floor by representative laymen in the audience, as to how they view this reform work which my profession has undertaken. In the course of these frank discussions, I have been able to make a study of what the people think of my profession in all parts of the country. This has never been possible to any other man before. It is in the light of this large and most profitable experience that I am here to take up the subject with you.

I was first induced to undertake this work because of an experience which came to me as a public official. For twenty-seven years I have been a member, and for twenty-five years Secretary, of the State Board of Health of Kentucky. I wrote the first medical law of that state, and since it was put upon the statute books have licensed every doctor in Kentucky. For twenty-seven years I have represented my profession before the legislature of my state in the interest of health and medical legislation. During most of this time I have been a member of the National Committee to look after the same interests before Congress. So that, during all of my professional life, I have been brought constantly in contact not only with medical men, but with representative laymen of the official class.

I started out in life with the idea that I had joined a very great and highly respected profession, but when I came in contact with that first legislature in Kentucky, twenty-seven years ago, I was very soon made aware of the fact that my profession was held in such low esteem by that body, that for it to support any measure pending before it, lessened the chances for passing the bill. This was a great surprise to me, but it was soon explained when senators and legislators from all walks of life, great men, fair men,

who wanted to do justice to every class of their constituents would say to me every day, "Doctor, this bill you ask us to pass looks to be fair upon its face, and in the interest of the people, but I have very little confidence in doctors. There is only one trustworthy doctor in all my county, and he is my family physician. He has told me over and over again that he was the only doctor in all that section who could be trusted. I know he told the truth because he told me confidentially, and asked me not to speak of it." Of course I didn't get any legislation from that body. On my return two years later, I would find another representative from that particular county and learn from him that there was another equally honest physician in that section—his family physician—and all the rest, including the adviser of that first member, could not be accepted as trustworthy. In this way I soon learned that twenty-seven years ago it was the custom in Kentucky for doctors—not all of them—but nearly all of them, sufficient to create a public opinion—to speak in habitual terms of distrust and criticism of the other doctors of the community. The result was that one man stood high with a few people, but the profession, as a whole, occupied a very low place in the public estimation.

I was faced with the condition of public sentiment arising from this evil every day in my public health work. I found that two physicians of a community who needed each other's help every day, as no other two men could (they ought to have been partners—at least co-laborers, and been engaged in joint study) were often so estranged by their petty contentions and jealousies that they could not consult or co-operate in anything.

Now, in my innocence, I believed for a long time that this evil was confined to Kentucky. You have probably heard that we have some peculiar customs down there. When I came to extend my observations to other states and other sections, I found from Maine to California and from the Lakes to the Gulf, excepting a few favored localities, that this evil hung over this great profession of ours like a pall, blighting and cursing it everywhere, and cursing the people with it. I am here for this very purpose and am going to convince you before I take my seat, that this is

Note.—This address was delivered before public audiences in 22 cities throughout the state, during October and November, 1906. The text herewith published is from stenographic notes taken at the Saginaw meeting, and revised by Dr. McCormack.



of far more importance to the laity than it is to the medical profession. I then became interested to know how long this evil had existed, and found that Fra Albertus, writing in the middle ages said, "And the sons of Aesculapius, every mother's son of them, took two or three hammers in his kipsey beside the one he had constantly in use on his brethren, and the only song they ever sang was the anvil chorus." I found that it came down to us as a vicious inheritance from the ages. A few years ago, my profession realized how widespread this evil was, how disastrous it had been to its own members and to the people, and we banded ourselves together all over this land, determined to uproot this evil and cast it out from our midst, and we have succeeded almost everywhere. Unfortunately this condition has existed so long in the profession that the public sentiment created by it has outlived the evil itself. We find that even up to this day it handicaps us in securing and enforcing legislation, and the pernicious effects upon the people continue.

I am going to show you how this has affected us as a nation, first by reference to two or three instances in recent history. I know that the figures have been burned into your memories, because they were iterated and reiterated in the public press, that during our short war with Spain, we lost four of our healthy young volunteers from preventable sickness for every one dying of wounds received in battle, while the Japanese, in a much longer and more severe struggle in Manchuria, lost but one from disease for every four dying from wounds, a great difference to our disadvantage. You were also told and the figures were true, that 85 per cent of our soldiers were inmates of the hospitals during the war from preventable disease, while this was true of only 15 per cent of the Japanese. This was set down to the discredit of our profession, which was most unjust. We had at the head of our medical department through that war one of the greatest scientists ever known. But General Sternberg had no more authority than a department clerk, and his successor has none today. For this reason regiments from your state and mine had their ranks decimated, homes were desolated, and women wore weeds of mourning all over this land. My profession had apprehended this danger for years and representatives from the state appeared before the National Congress, session after session, at their own expense, and begged that our medical officers might be given author-

ity to protect our armies. They were received with scant courtesy. Even last year when my colleagues went before the Congress, with these object lessons of Manchuria and Cuba before the country, they failed. In the event of a foreign war tomorrow, we would have the same disastrous record to face, unless legislation can be secured. If time permitted, I would like to show you how the same influences have obstructed the building of the Panama Canal, how they were responsible for the epidemic of yellow fever less than two years ago, and in many similar national affairs have brought us to the verge of great public dangers, and have entailed much loss of life and the waste of hundreds of millions of dollars.

What I am trying to show you is that medical men who alone have the training and are informed on these matters, have not the authority, and those who have the authority have no training or information. Great men in other affairs, many of them are, but without the special knowledge which would make them competent in the supervision of sanitary work.

Now, this is the record that has been made for us as a nation, but bad as it is, it has been far worse and more serious for you people here in Michigan. Half the sickness that you had in the state last year—half the people that you carried to your cemeteries—were ill and died from diseases which are preventable, which doctors know how to prevent could they have your co-operation. You have fully 20,000 to 25,000 cases of consumption in Michigan today, and 2,389 deaths were reported from this disease last year. There was not a case of consumption in Michigan last year, or any other year, that was not due to the fact that the persons who had the disease got the germs of the disease into their system from some previous case. There is no other way to get it. Consumption is not inherited. Even if your father and mother died from consumption, you can, at the very worst, only inherit the kind of constitution, or soil, which makes you vulnerable to the disease. You can no more have consumption in your system without having received the seed of the disease from a previous case than you can raise corn out here on a rich Michigan farm without seed. If all the expectorated matter and other infected excretions from every case of consumption now in Michigan should be collected and destroyed until all the cases now existing have either recovered or died, there need never be another case of consumption



in this state, unless it be an imported one.

Take another disease: You had in this state last year—between sixteen and seventeen thousand cases of typhoid fever, with from 1,500 to 1,600 deaths. That is one of the most important of preventable diseases, because it is one that most affects people in the prime of life. Typhoid fever is a filth disease. There was not a case in Michigan last year, and never was, that was not due to the fact that the person who had it, got into his mouth and stomach in some way, some of the discharges from the kidneys and bowels of some one who had typhoid fever. It is not a pleasant thing to think of, but it is much worse to do it. People should know the truth and stop doing it. In cities it is often carried in the water or milk supply, in the country districts almost always by the ordinary house fly. Through one means or another you must get the poison; you must get the seed to produce a case of typhoid fever; you can no more have it unless you contract it in that way than you can raise wheat out here on one of your farms without the seed. If all of those two discharges could be collected from every case of typhoid fever as it occurs, this disease would be easily wiped from the map. And it ought to be done.

If time permitted, it would be interesting to tell you in the same way how the thousands of cases of scarlet fever and diphtheria, which occur annually in this state, ought to be prevented. Still more with cholera infantum. The average dairy man is exceedingly careless, and nearly all this great death rate amongst our children is due to impure milk. This was recognized in Rochester, New York, depots for sterilized milk being placed within the reach of every family, and they cut down the death rate of babies fifty per cent in one year. It ought to be done everywhere if our babies are worth saving, as I certainly believe they are.

I am not saying anything new to your medical men. They are as familiar with this information as am I. At their own expense they have gone before your legislature, year after year, and urged that health boards be given power to stop this death rate, and their requests have been refused. It has been said over and over again in the halls of your legislature and the National Congress that the medical profession was asking this in their own interests. Some said it was a graft on the part of the medical profession. In the name of reason what interest could the doctors of Michigan possibly have in seeking the pre-

vention of these diseases except for the public good? They live by the treatment of the sick; they have no other means of earning a livelihood. In so far as they succeed in preventing disease, they diminish their incomes, but like all of the learned professions, a large part of what we do is altruistic and in the nature of things unpaid and unselfish work. I think it is largely because it is so unselfish, so purely altruistic, that we have been misunderstood in these matters so long. Legislators found no one else asking for legislation that would decrease his business, and they could not believe that physicians would do it at their own expense, year after year. It is not known to the public that a large part of the work has always been of this kind. If Dr. Small should make a discovery tomorrow in the cure of consumption, he could not have it patented, as other citizens may, but would have to give it to the profession and without cost. He made a vow when he entered the medical profession that any discoveries he should make would be given to the public without money and without price. If he failed to keep that vow, he at once becomes an outcast. If Dr. Curtis, tomorrow, should devise an instrument that would be necessary in the practice of every doctor in the world, and which would make him a millionaire if he could patent it, he is deprived of that privilege, and in the same way is forced to make a drawing of the instrument and give it to the world. And it is this profession, animated by such unselfish purposes, which has been misunderstood in all ages, partly because of the fault of speaking unkindly of one another and largely because the work has been so unselfish it could not be appreciated. This is so surprising to me because I know more doctors than any other five hundred men in the United States. I know them in every county almost, in every state in this Union, and I don't believe any other class of men on this earth will bear more than favorable comparison with them.

The doctors of Michigan do more actual christian charity in every day and every night through the year than all the churches and charitable organizations put together. We practice what those good people preach. They tell us what to do and we do it. The leaders of my profession in such cities as Detroit, Chicago and New York walk the boards of the hospitals for two hours every morning and give the same consideration and treatment to the poor as they do, the rest of the day, to their millionaire patients. And the country doctors, the noblest specimens of God's man-

hood, when called through the rain or shine, night or day, treat the rich and poor alike. We collected the facts in my state two years ago and found that over half of the people in Kentucky never paid their doctors' bills and never intended to. We have a large colored population there, and it is against a darkey's interest to pay principal, and against his principle to pay interest, so he never pays anything. We also have a large number of white people who have adopted the same plan. Still, there is not one of them anywhere in this broad land that ever wants for medical aid. And yet it is this profession which has been so misunderstood!

It was an interesting question to me as to why an evil like this developed in such a body of men and why it continued. I began to make investigations and found that it was not confined to the medical profession; that it was common to all locations where the people lead lives apart from others engaged in similar work. Take bankers as an example. You all can remember that not many years since, wherever there were two or three banks in a community, it was considered quite the thing for the presidents or cashiers to pass on the street without speaking and for their wives not to recognize each other as members of good society. But this has all disappeared. Those banks have been organized. There is a bankers' association in this city, I know, and their organization has brought peace to themselves and prosperity to the people.

I was greatly surprised when I found the evil had always been more pronounced in the clergy even, than in the medical profession. Leading lives apart, as they did, dissensions had existed in all ages, giving rise to great wars and persecutions. I can remember in my day when there were public debates on the mode of baptism and purposes of the other sacraments, dividing families and rending communities. But in recent years this calling has been organized, and I know without asking, that there is a ministerial association in this city which meets at some pastor's study every Monday afternoon or evening to discuss the moral and religious interests of the community. Thus they have been able to advance the moral and religious interests of the community. Thus they have been able to advance the cause of religion in a way which never seemed possible before. I might give instances in other professions of which the same things are true, but it is unnecessary.

I want to turn to a pleasant picture. There is

one great calling where this evil never took root. Lawyers have lived together in peace in all the ages. You can't get two lawyers anywhere to quarrel about anything, unless you pay both in advance. They just will not do it. And how I do venerate that great profession! How different would be the history of our country if the same could be said of the physicians and the clergy. It has ruled this country from its foundation, gone into our legislature and made the laws, gone into the courts and construed them, and into the executive offices and administered them. As a careful student of our history, I doubt if any other profession would have done it so well. I question if civil liberty could have been maintained in this country without them. Had the medical profession been equally harmonious and equally wise during the formative periods of our country, medical and health boards would have been as much a part of the warp and woof of our government as the courts are. They ought to have been. A great health department at Washington, with authority and equipment for continuous scientific investigation, and for collecting information as to the cause and prevention of disease is as important to you as a judiciary department can be. A state board of health at Lansing, with its members so supported that they could devote their entire time to a similar work in your state is as important to the people of Michigan as your appellate court is. You can not have this protection until this equipment and this authority and similar facilities for investigation of the causes of disease in each locality is just as important as any court in your county can ever be. Inspection of your dairies and slaughter houses, and of your schools, and the detection of the first case of contagious disease is something that you cannot afford to neglect, no matter what it costs you. Your health officer must be so supported that he can devote his entire time to the duties of his office. No man can serve as health officer and practice medicine at the same time. You wouldn't employ him as your family physician if he required you to put your premises in proper condition. This would be a matter of economy which would pay more than a thousand dollars for every dollar it would cost. The greatest tax upon you today is what you pay for unnecessary sickness and unnecessary funerals. And until the people of your city and county realize this and order their public affairs in accordance, this unnecessary sick and death rate must go on. We know it to be true and my profession, at its own



expense, has employed me to go up and down in this land to beg the people to come to its support in this work. Now, the profession, in an attempt to accomplish this work, as I have told you, has formed a great scheme of organization based upon our system of civil government. We have an organization in every county where there is a sufficient number of doctors. I have been in conference with the doctors of this county all the afternoon in regard to it. They have been doing much good work in the past, but have promised to do it very much better in the future. In order that you may understand something about the kind of work they have taken upon themselves, I am going to put an object lesson before you as to what is going on in a great many counties in this country. In Indiana, two years ago, before an audience of physicians from ten counties, I urged that a post graduate school be established in every county, where the doctors might get together and study medicine, review their studies, the facilities for post graduate instruction to be brought within the reach of every physician in the county. Now, you realize that medical science is advancing with a rapidity unknown in any other branch of knowledge. There is not a source of information open to any doctor in Berlin, New York or any other place that is not open to every doctor in your county, and it is an effort to place a modern, competent doctor within the reach of every family in this country that we are trying to start a course of this kind in every county. I am convinced that if a doctor who has been out of college four or five years is not in some way connected with his fellows in an effort to improve his knowledge in the progress of his profession, or if he is not going off to some medical center for a post graduate course, it is only the question of time when he is going to become a source of danger to every family dependent upon him. After my talk at this meeting, the discussion was opened by a great surgeon who said: "I am happy to tell you that we have done far more in this county than you have suggested. Three years ago we induced every doctor in our county to join our association. We had two or three homeopathic physicians and took them in. We realized the importance of this work, and believed that there was no more room for three schools in medicine than there is law." He said: "In a little while, we decided to take up the post graduate work. I was selected to give demonstrations in anatomy; one of my colleagues was selected to give a course in chemistry. He went to

Chicago and took a post graduate course in order that he might be the better qualified. We decided to meet every Monday evening. We thought at first that only the doctors of the little city would be present, but it soon became so popular that when the meeting time came we didn't have a vacant chair unless some one was kept away by an emergency case. In about ten weeks, they said we were not meeting often enough, and we decided to meet twice every week, and for three years we have met here in this room, completing six courses. We have just entered upon our fourth year with greater interest than we ever had before. As the work went on, it developed that the average doctor in this county is too poor to practice medicine. My heart bleeds for a majority of the physicians of my county, for after supporting their family their income is insufficient to enable them to give their patrons the benefit of the instruction they have secured. We do not know what to do about it. We have almost been afraid to discuss it among ourselves, and we have waited for you to come to tell us what to do. As I do surgery exclusively and have an ample income, it does not affect me personally." I said to him: "You think you are telling me something that is very strange. This evil exists nearly all over this country." I am informed that it doesn't exist in this section of Michigan, but in the majority of the counties of Michigan it is just as true as it was in that county in Indiana. I said: "Is there any other county represented here where the doctors have taken up this problem and worked it out?" A doctor arose in the audience and said: "We have already worked out this question. We organized our profession and started a post graduate course, but we found a majority of our doctors were too poor to lose the necessary time, and finally someone suggested that we invite a number of business men to come and give us the benefit of their counsel. At our next meeting we had forty or fifty business men present. When the president had stated the purpose of the meeting, a great banker arose from the audience and said: 'This is one of the most alarming statements I have ever heard. There has hardly been a year since I have had a family that the life of some member of it has not depended upon the competency of my physician. The average physician in this county is crippled in his every-day life-saving work for the lack of a few paltry dollars! It constitutes a grave public danger and I think we ought to have a mass meeting and discuss this



question.' And we did have a public meeting and had a full and frank discussion. We have a fair people in this county. This evil was entirely wiped out, the new plan has been in operation now for three years, and I am satisfied that if it was submitted to a popular vote, it would be overwhelmingly sustained."

This is a matter that I like to discuss. In nearly every county there are a few prosperous physicians who mislead the people as to the whole profession. One of the great menaces to the public health in this country is poverty in the medical profession. The cost of living has almost doubled within the last ten years. The cost of equipment of the medical man has increased tenfold. It is now one of the most expensive of the vocations. What is true of us is equally true of educators, teachers, lawyers and clergy. All of these vocations are very inadequately supported. The commercial classes, the farmer and the laboring man have shared in the great prosperity of our land in a way that has not been extended to the professions. What the solution is to be, I cannot tell, but the evil ought to be recognized and discussed.

As soon as the doctors have decided these matters then I am going to urge them in this county to take up co-operative work with the other vocations. I suggest that this county association should invite the druggists to meet them in conference. The druggists are important aids to the doctors. They are good citizens. I do not know that it is true of your shops here, but the average drug store is little more than a depot for the distribution of cheap whiskey under the guise of patent medicine. With most of them, from half to two-thirds of their stock consists of such things as Hostetter's Bitters, Peruna, Swamp Root, Vinola, Mrs. Lydia Pinkham's Compound and a large number of others unnecessary to enumerate—nearly all of them cheap cocktails flavored more or less with medicines. The druggists tell me that they would like to get rid of this trade but they do not know how to do it on account of the popular demand for these things. We must co-operate with them and see if we can't rid the country of this danger. This is not only true of the whiskey preparations, but of the dopes and dangerous heart depressants which add to a very considerable extent, to the death rate of this country every year. Bromo-seltzer and the headache powders, all have the most dangerous of heart depressants as their base. Nearly all of the catarrh remedies contain cocain. These medicines

cause sickness and increase the prosperity of the doctors. The time has come for the public to know what they are taking and physicians must lead in this work. Such preparations as Mrs. Winslow's Soothing Syrup and Baby's Friend contain large quantities of morphine. I hold in my hand a coroner's report showing the death of infants from the use of these things, and probably but a very small per cent have been reported. They have already sent enough babies to their long home so that their sale ought to be prohibited by law.

Another fault I find with drug stores is this—I believe in the same standard of morality for men and women, but unfortunately it does not obtain in this country. Half of the diseases contracted through the immorality of young men are treated by little boy clerks in drug stores. They laugh at and make a joke of these things and thus encourage immorality. These young men, having faith in what has been done for them, go out, and in a few months are married to your daughters and your sisters, and in a little while a large per cent of these women, unprotected by their own purity, are diseased. Half the surgery done for women in this country every year is traceable to this disease, and the time has come for medical men to take up this question for the purpose of protecting our women. It has become almost a great national question. The druggists often say they are receiving injustice at the hands of the medical profession. They may be. Let us meet with them in frank conference and adjust these difficulties.

Just as soon as this has been done, the medical profession ought to invite the clergy to meet them in frank conference, because the backbone of quackery in this country is in the clergy and the church press. I do not want to be misunderstood in what I am going to say on this subject. I married the daughter of a great preacher. My father's house was a preacher's home, and my own has always been. I know how the true clergy feels on this question I am going to discuss. There are two classes of preachers. The doctors have their quacks and lawyers have their shysters. I think the clergy has not recognized the disadvantage at which it has been placed in this country arising from their failure to draw the line distinctly between the true clergy and the quack preachers. A majority of the great quacks in this country have criminal records. R. C. Fowler, probably the most ignorant and successful quack this country has ever produced, was a pastor of

a church in my town, when I went there many years ago to practice. He was driven out of the ministry for gross immorality, and soon turned up in Boston as a great doctor. When in Missouri last year, I visited Welkmer's quack factory, where he makes them in two weeks, and after listening to him for some time, I said to him: "Doctor, were you ever a clergyman?" "Yes, for several years." When they are expelled from the ministry they all want to come into the medical profession. I am often asked by clergymen, why so many doctors drift away from the church? I answer that it is because they have lost faith in the personnel of the clergy. Physicians have nearly always done the practice of the clergy gratuitously, and after a doctor has lost a night's sleep with a clergyman's family, and finds a certificate in his morning or church paper from great so-called Doctors of Divinity, certifying to the benefits they have received from Duffy's Malt Whiskey, as is done every day, he cannot but feel aggrieved. We have traced them out and found that those who do these things are generally a discredit to the churches to which they profess to belong. The public and profession do not know this and hence are being misled, and the time has come for the true clergy to speak out for the protection of the people. I picked up a paper the other day, and saw where the Rev. Dwight said that if it had not been for the use of Duffy's Malt Whiskey, he would have had to retire from the ministry. Last year one of the most consecrated old clergymen I ever knew, as good a man as ever lived in this world, who would no more think of taking a drop of liquor than would the best clergyman in this house, was treated for delirium tremens in my town. He saw the advertisement in his church paper and began taking Peruna. Not getting the desired effects, he wrote the proprietor asking him what was the matter, and was advised to take more Peruna. He did so. When a physician was called in, he found the devout old man debauched from delirium tremens. I heard the Rev. Dr. Baker say that one of the best clergymen in Ohio fell into this habit, and after being examined by a physician, the son went to the doctor and wanted to know what the trouble was, and he was told that his father had chronic alcoholism. The son said that it was impossible, because his father was a total abstainer and temperance lecturer. The physician said that he was in a condition that could not have been, had he not touched liquor. The young man said: "I know he wouldn't

take anything. He has not taken anything except from a bottle to a bottle and a half of Peruna each day." That is going on all over this country. I hold that this is a matter about which we have special information. The time has come to call in these men and take up the question and let the public be advised that this thing may be stopped.

The doctors ought to invite the good women, especially the club women and all the other organizations into this conference. If modern sanitary information is to be brought to the people, we must have the co-operation of the women. This matter regarding patent medicines ought also to be brought to their attention. Some of them would be horrified if offered a glass of beer containing 5 per cent alcohol, while they will take Peruna which is 27 per cent, and Mrs. Lydia Pinkham's Compound which is 21 per cent alcohol. I saw an advertisement the other day saying to the good women of Michigan that if they would correspond with Mrs. Lydia Pinkham, she would be glad to tell them just what to do. If you will pick up the *Ladies' Home Journal* of October 8th, last year, you will find a good picture of Mrs. Lydia Pinkham's tombstone and grave, showing that she died in 1881. And still she is engaged in selling that cheap whiskey. It might be well to obtain the advice of the clergy where you have to write to her. Your letter might have to be written on asbestos.

The doctors ought to invite the teachers of this county, the representatives of all the schools, to meet them in conference. One of your great teachers said at Battle Creek, the other day, that he considered the instruction of the children in the prevention of sickness, of more value than instruction in mathematics. I believe so. With the stereopticon to throw those germs on the screen before the pupils, it is just as easy to teach these things to the scholars as it is their a b cs. These teachers are instructing the future voters and future housewives of our land, those who will soon be administering the affairs of this country. I am sure that an appeal to them would not be in vain.

Then meet with the bar association in your city—ask the lawyers to meet with you. This is a twin profession of ours. The matter of expert testimony has become a question of great public importance. The state bar association of my state has taken it up and has decided to refer it to the national association, and so unite on many problems which these two professions

should work out.

Your mayor and your city and county officials should be invited into your conference. As soon as our public officials are convinced that this unnecessary sickness and these unnecessary deaths can be prevented, there will be no difficulty in securing their co-operation. Invite your senators and representatives to meet with you, and give them the kind of information that is necessary.

This great profession of ours must get more men into public life. The lawyers have done their work well, but we have entered on a new era, and this great profession must lead. It may not be necessary for its members to go into the legislative halls, but they must get into touch with public officials so that they may be properly educated along all these lines.

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## County Society News

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### SEVENTH DISTRICT.

The meeting of the Seventh District County Societies was something of a disappointment as regards representation from two of the counties of the district, Huron and Sanilac. The other two counties were well represented and the meeting was a very decided success.

An excellent paper by Dr. Breisacher on "Some Diseases of the Stomach," with methods and means of diagnosis, was instructive and entertaining. The ex-secretary and editor of the Journal, Dr. A. P. Biddle, held a clinic on skin diseases in which several interesting cases were exhibited. The program was very instructive and very much appreciated by every one present.

Dr. McCormack gave us a most excellent address in his usual lucid style and forceful manner, and I am sure every one present felt encouraged to devote himself more vigorously and courageously to following out the higher ideals of the medical life and work which we all cherish, but which are sometimes obscured by the drudgery and discouragement of actual practice.

Liberty hall was filled in the evening by an appreciative audience who listened with pleasure and close attention to the able and entertaining address of Dr. McCormack on the "Inter-relationships of the Profession and the People." His discourse was a great revelation to many and many of our most highly cultivated people said, after the lec-

ture, that they regretted that only a hall full instead of the whole city had heard the presentation of the truth in regard to the many vital points touched on by the speaker.

It is probable that the next District Meeting will be held next summer in Bad Axe in Huron County, where we hope to have a good program and a full representation from all the counties.

MORTIMER WILSON, Councilor.

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### CALHOUN.

The annual meeting of the Calhoun County Medical Society was the thirtieth since the organization. Drs. G. Frank Lydston and Bayard Holmes, of Chicago, had promised papers and with every assurance of a splendid program, a big audience was in attendance. For some unknown reason, neither doctor appeared and the afternoon was devoted to routine business, the only paper being the president's address by Dr. W. H. Haughey of Battle Creek, entitled "The Calhoun County Medical Society."

The election of officers for 1907 resulted as follows: President, Robert B. Gubbins, Ceresco; Vice-President, Wm. H. Riley, Battle Creek; Secretary and Treasurer, Arthur S. Kimball, Battle Creek; Delegates, W. H. Haughey, Battle Creek, and Geo. H. Hafford, Albion; Alternates, Chas. E. Stewart, Battle Creek, and Stan K. Church, Marshall.

Ten new members were admitted.

The program and banquet of the evening, at the Sanitarium, were dedicated to Dr. S. S. French, one of the three surviving charter members, our only resident charter member, and probably the oldest professional man in the State Society, as well as one of its ex-Presidents.

Dr. C. B. Stockwell, President of the State Society, was present, responding to the toast, "Future Ideals."

The next meeting will be held the first Tuesday of March at Albion.

A. S. KIMBALL, Sec'y.

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### CHIPPEWA.

The Chippewa Medical Society held its annual meeting at the Park Hotel Tuesday evening, Dec. 4, and elected the following officers for the ensuing year: President, Dr. G. J. Dickinson; Vice-President, Dr. J. J. Griffin; Secretary and Treasurer, Dr. A. H. Miller; Delegate to State So-



ciety, Dr. Robt. Bennie; Alternate to State Society, Dr. W. Townsend.

After the routine of annual business was over, the retiring President, Dr. R. Bennie, entertained the society at a banquet given in the private dining room of the hotel. Toasts were responded to, in a manner that would indicate as bright a future for the society as it has enjoyed prosperity in the past.

A. H. MILLER, Sec'y.

#### DICKINSON—IRON.

The fourth annual meeting of the Dickinson—Iron Medical Society was held at Iron Mountain Tuesday, Dec. 11th, 1906. The following officers were elected: President, Dr. F. Larson, of Crystal Falls; Secretary-Treasurer, Dr. H. Sethney, of Crystal Falls; Vice-President, Dr. Libby, of Iron River. Two new members were received: Dr. Ferris Summerbell, of Norway; Dr. Carl Stevens, of Norway.

J. B. BRASSEUR, Sec'y.

#### GRAND TRAVERSE.

The annual meeting of the Grand Traverse County Medical Society was held on the evening of Dec. 4, 1906, at the office of Dr. J. W. Gauntlett.

Dr. E. B. Minor read a paper on "Scarlatina," and Dr. L. F. Sipher one on "Measles."

The officers for 1907 are: President, Dr. J. M. Wilhelm; Vice-President, Dr. O. E. Chase; Secretary-Treasurer, Dr. M. M. Canavan. Board of Censors—Drs. Arthur Holliday, William J. Shilliday and F. P. Lawton.

Meetings are held every two weeks.

M. M. CANAVAN, Sec'y.

#### IONIA.

The Ionia County Medical Society has finished its fourth year and begun its fifth in healthy, robust condition. We have had four (quarterly) fine meetings, each one an improvement over the preceding one. Attendance grew larger—new members added at each meeting. We have furnished our own entertainment, papers, clinics and reports and have not found it necessary to import additional help.

The society has awakened to the fact that we

have in and among ourselves the necessary qualities and qualifications for a wide-awake, progressive medical society. We have as fine a band of deep thinking, hard working, clear headed medical men as it has ever been my privilege to meet.

The fourth meeting of the year was an excellent one. The resident physicians of Ionia furnished the entertainment at Hotel Barclay, after which we adjourned to the new Town Club Rooms, where the business of the year was closed up and a start made for another year.

The officers chosen were: President, Dr. J. F. Pinkham, Belding; 1st Vice-President, Dr. C. B. Gauss, Palo; 2nd Vice-President, Dr. P. L. Hoag, Ionia; 3rd Vice-President, Dr. F. W. Martin, Portland; 4th Vice-President, Dr. W. J. Wilkerson, Orleans; Secretary-Treasurer, Dr. C. S. Cope, Ionia; Auditors, Dr. J. McCann, Ionia, and Dr. J. E. Furgeson, Belding; Delegate, Dr. C. S. Cope, Ionia; Alternate, Dr. W. E. Ogden, Ionia.

Four new members were admitted: Drs. B. O. Ericsson, George Moore, H. O. Haynes, of Ionia, and Dr. J. D. Bradfield, of Orange.

Next meeting will be held at Belding January 10, 1907.

C. S. COPE, Sec'y.

#### MANISTEE.

The Onkama Heights Sanatorium Association was organized March 16, 1906, its medical organizers being physicians in good standing and members of the Manistee County Medical Society.

Dr. W. E. Coates, the medical director of the Sanatorium, is the Chairman of the Tuberculosis Committee of the Manistee County Medical Society. Until 1903, when he removed to Michigan, Dr. Coates had been for ten years connected with graduate and under-graduate medical college laboratory teaching in Chicago, his last position being Adjunct Professor of Pathology at the College of Physicians and Surgeons, Chicago.

The aim of the association is to conduct on a self-supporting basis, a semi-philanthropic institution.

The Sanatorium will be conducted as a "Tent Colony."

The following benevolent funds have been established, to which public subscriptions are invited:

Endowed or Free Bed Fund.

Nominated Bed Fund.

Building Endowment Fund.

Clinical and Research Laboratory Fund.

## General Endowment Fund.

The charge for board, nursing and medical attendance will be kept as low as is consistent with good business policy—the aim being to make the association self-supporting, either through direct income from the patients or indirect income from the various benevolent funds.

L. C. KENT, M. D.

C. A. CARPENTER, M. D.

M. H. NESTER, M. D.

W. W. ARSCOTT, M. D., Sec'y.

Committee.

## OTTAWA.

The December meeting of the Ottawa County Society was held at Zeeland. The meeting was given up to a discussion of pneumonia, colds and influenza, all timely subjects. By vote of the society the publication of a paper on Pneumonia by Dr. T. G. Huizinga, of Zeeland, was requested.

E. D. KREMERS, Sec'y.

(The paper will appear next month.—Ed.)

## SHIAWASSEE.

The regular monthly meeting of the County Society was held in the City of Owosso, Dec. 4, 1906, at 3 p. m. Number of members present, 10.

In the absence of President and Vice-President, Dr. D. H. Lamb was called to the chair, and presided over the meeting.

The annual report of the Secretary and Treasurer was read and received. The report showed a membership of 39, a loss of 6 members during the year.

Dr. Lamb introduced Dr. John V. Frazer, of Lapeer, who read a very interesting paper on "Why Doctors Are Poor, and the Remedy," which will appear in an early issue of the Journal.

Dr. A. M. Hume extended a cordial invitation to the society to hold its next meeting at his office, which was accepted.

Election of officers for the ensuing year resulted as follows: President, Dr. T. N. Yeomans, Bancroft; Vice-President, Dr. Walter E. Ward, Owosso; Secretary and Treasurer, Dr. James A. Rowley, Durand; Directors, Dr. E. J. Carney, Durand; Dr. William Shaw, Morrice; Dr. J. O. Parker, Owosso; Delegate, Dr. J. N. Eldred, Chesaning; Alternate, Dr. C. McCormick, Owosso.

J. A. ROWLEY, Sec'y.

## ST. JOSEPH.

The St. Joseph County Medical Society met at Three Rivers, December 18, 1906. In the absence of President Cameron, the chair was filled by Dr. Marden Sabin, of Centerville. The attendance was not what it should have been. Dr. Sabin read an interesting paper on the "Relation of the Doctors to the County Poor."

The following were elected for 1907: President, Dr. L. K. Slote, Constantine; Secretary, Dr. J. R. Williams, White Pigeon; Treasurer, Dr. T. J. Haines, Three Rivers; Delegate, Dr. J. R. Williams, White Pigeon; Alternate, Dr. Blanche M. Haines, Three Rivers; Executive Committee, Drs. Knowles, Haines, and Sabin.

J. R. WILLIAMS, Sec'y.

## PRESQUE ISLE.

At a special meeting of the Presque Isle Co. Medical Society, held at Onaway, Nov. 18th, 1906, the following resolutions were read and adopted:

*Resolutions of Condolence.*

Whereas, God, in His infinite wisdom has seen fit to remove from our midst our highly esteemed President, Dr. DeWitt C. Howell.

Whereas, by his death, the County of Presque Isle has suffered an irreparable loss, and many of its citizens are deprived of the competent services of one in whose hands frequently were placed the lives of their beloved ones, resting assured that their confidence was not misplaced.

Whereas, the Presque Isle County Medical Society has lost its most untiring and energetic member, whose efficient services and counsel it has so often solicited and whose quick response never failed when duty called;

Therefore Be It Resolved, that we, the members of the Presque Isle County Medical Society, do deeply regret that it was the will of an Almighty Providence, to call from his labors our beloved friend and associate,

Resolved, that we most sincerely sympathize with his bereaved family, commending them to that Father who knoweth best in all things and doeth them well.

Resolved, that these resolutions be spread on the records of this Society, that a copy be sent to the family of the deceased, and that copies be sent to the various newspapers of the county.

JOHN YOUNG, M. D., Vice-Pres.

## Correspondence.

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### *To the Medical Profession of Michigan:—*

The medical profession of San Francisco lost its medical library, the San Francisco County Medical Society Library, in the fire last spring. Most of the physicians also lost whatever private libraries they had succeeded in collecting. A committee (named below) has been appointed by the American Medical Association and by the Association of American Physicians to collect and send books to San Francisco, both for the library and for private individuals when duplicate copies are sent on.

Will you send to Dr. Arthur T. Holbrook, Goldsmith Bldg., Milwaukee, any medical books of value or bound volumes of Journals which you can spare? Fairly recent editions of standard text books, foreign text books or bound Journals (French, German and Italian) hospital reports, monographs of all sorts, books on special subjects, old classics, (e. g. Trousseau, Charcot) and the Sydenham Society publications are especially desired.

Acknowledgment of all that is received will be made through the medical journals, and the books will be packed and shipped as promptly as possible.

(Signed.)

Charles L. Dana, Chairman, New York City; Frank Billings, Chicago; E. Bates Block, Atlanta; J. A. Capps, Chicago; T. D. Coleman, Augusta, Ga.; George W. Crile, Cleveland; W. E. Fischel, St. Louis; F. Forchheimer, Cincinnati; Charles L. Greene, St. Paul; Arthur T. Holbrook, Milwaukee; Geo. M. Kober, Washington; Lawrence Litchfield, Pittsburg; Rudolph Matas, New Orleans; H. C. Moffitt, San Francisco; John H. Musser, Philadelphia; William Osler, Oxford, Eng.; Henry Sewall, Denver; C. G. Stockton, Buffalo; W. S. Thayer, Baltimore; R. C. Cabot, Boston, Secretary.

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## Michigan Personals

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Dr. H. R. Pitz has been appointed to the staff of the Kalamazoo Asylum. Dr. Pitz is a graduate of the medical department of the University of Illinois.

Dr. G. A. Easton has located in Cedar Rapids.

Among the travelers in Europe are, Dr. E. L. Shurly and Dr. A. H. Steinbrecher, of Detroit, and Dr. Richard Leuschner, of Mt. Clemens.

Dr. J. S. Hamilton, formerly of Detroit, has accepted a position of mining physician at Painesdale.

Dr. M. E. Topping will remove, in the near future, from Fenton to Lansing.

Dr. George Dock, of Ann Arbor, was the guest of the Eaton County Medical Society at its October meeting. Dr. Dock read a paper on "Pericarditis."

At the meeting of the Jackson County Medical Society, December 6th, Dr. H. J. Hartz, of Detroit, read a paper on "The Sanatorium Treatment of Tuberculosis."

Dr. William A. Polglase, who retired as superintendent of the Home for Feeble Minded and Epileptics at Lapeer, on January 1st, has opened an office in the new Fine Arts Building, in Detroit.

At the December meeting of the Oakland County Medical Society, held on the eleventh of the month, President Stockwell and Chairman Burr were guests of honor.

Dr. George E. Chamberlain, Grand Rapids, has been appointed medical director for the State Home for the Feeble Minded and Epileptics, Lapeer, to succeed Dr. W. J. Polglase, who retired January 1st.

Dr. and Mrs. Alexander G. McLeod, Calumet, returned November 25, from an extended trip to Europe.

Dr. Millie Wilson, Detroit, has succeeded Dr. Nina Oliver McIntyre as assistant physician at the State Home for the Feeble Minded and Epileptics, Lapeer.

Dr. A. E. Gordeau, Ishpeming, has returned from Mexico.

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A fracture produced by only slight violence should at once raise the suspicion of a malignant growth. In such a case a uniform dark shadow about the bone as seen in the fluoroscope is to be interpreted as a neoplasm rather than as callus, for recent callus is not opaque to the X-rays.

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In the treatment of fractures of the forearm no consideration is more important than the avoidance of contractures of the fingers, by the intelligent use of splints and by means of early, active and passive movements.



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**The Serum Treatment of Scarlet Fever.**—SALTYKOW reviews the whole literature of this subject, and analyzes the results reported by the various clinicians with different kinds of anti-streptococcic sera. While these reports do not agree very well, one gains from them the impression that in general the results from "polyvalent" sera—that is, antistreptococcic sera prepared according to ordinary methods—have not been especially favorable. On the other hand, men like Escherich, Bokal, Pospischill, Hanoch and Moser himself are very decided in their advocacy of Moser's serum, which is univalent against a streptococcus which Moser supposes to be to a certain extent specific for scarlet fever. The best reports for this serum come from Austria and from some of the Russian clinics, while Baginsky and Heubner see little proof of its value.

It seems necessary that it be used in very large doses—100 to 200 c. c. or more, and early in the disease, if benefit is to be obtained from it.

The results claimed for Moser's serum by its advocates are chiefly in the lessening of the toxic manifestations, such as the nervous phenomena, the heart symptoms, the rapid pulse and feeble respiration, the temperature, and the joint pains. Escherich noted remarkable results in severe cases with high fever, delirium, apathy, and green diarrhea, where the throat symptoms were slight. The effect on the manifestations of general infection, and on complications already established, is less marked. Moser claims, however, that if the serum is given early, septicemia, pemia, and nephritis are all less frequent.

Recently a serum prepared by Marpmann, in the preparation of which are used extracts of the skin, urine and blood of scarlet fever patients, with the idea of getting the specific poison rather than the streptococcus, has been given trial in Berlin and London, and some very good results are claimed.

Possible prophylactic effects are noted for the sera of both Moser and Marpmann, but need the confirmation of further trial.

The reports seem to indicate that while little is to be expected of the polyvalent sera, Moser's serum certainly deserves extended trial, and further news from that of Marpmann is to be desired. If results are to be obtained from the serum treatment, large doses must be used, one should not look so much for striking results in a particular case as for a somewhat more favorable course in the average of a series, with somewhat diminished mortality and fewer complications.—*Arch. für Kinderheilkunde*, vol. 44, p. 339.

**Early Feeding in Typhoid Fever.**—SMITH read a paper at the Toronto session of the British Medical Association opposing the routine diet for typhoid cases, and emphasizing the importance of studying each patient separately and feeding him according to his needs, speaking particularly of the un wisdom of regulating the diet by the temperature curve, which in this particular matter is one of the most important factors. He presented analyses of his own cases in the London Hospital, 113 in number, compared with those of the rest of the staff, showing that his patients received "solid food" on the average about a fortnight earlier than those of the rest of the staff. Had relatively fewer hemorrhages, perforations, or other complications and averaged 12 days less time in the hospital. In his series, eggs and bread and butter were given, on the average, on the 24th day of the disease, fish on the 32d day, and meat on the 41st day.—*Brit. Med. Jour.*, Oct. 20, 1906.

**The Opsonic Index in Medicine.**—POTTER, DITMAN and BRADLEY give a brief review of the work done by others, a very full bibliography, and an analysis of a considerable amount of work done by themselves on the indices for various organisms and the practical applications of the method. Their conclusions are interesting, especially as there is a tendency among those of the profession who do not appreciate the difficulties, to expect too much from Wright's discoveries. Concerning the practical value of the index, they conclude: That the great difficulty will lie in the fact that changes, more or less profound, are often indicated by very slight variations in the indices—frequently little beyond the limits of experimental error.

That some aid in diagnosis may be obtained by the determination of single indices, but that before this can be considered reliable much work must be done on the specificity of opsonins.

That a wider field of application will lie in the control of frequency of administration and dosage of bacterial vaccines, but that technical difficulties must limit the clinical use for this purpose.

That the method may prove of value in determining susceptibility to infection, especially the inherited susceptibility to tuberculosis.

That perhaps the greatest usefulness may be found in the laboratory, in determining the virulence of organisms and the potency of sera.—*Journal A. M. A.*, Dec. 1, 1906.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**The Omentum and Its Function.**—"The numerous blood-vessels and lax tissues of the omentum allow of storage of blood when the general arterial tension is high. By venous anastomosis through adhesions, local congestions may be relieved. Through its large surface freely exposed to surrounding parts in motion, it becomes a rapid absorber of fluids by the blood-stream. By the lymph-stream it is a free carrier of white blood corpuscles, encapsulating solid particles. Through its cohesive tendency, apertures in the abdomen into which the omentum has been forced by intra-abdominal pressure become more or less completely closed. Through its readiness to lymph formation and local proliferation, it becomes attached to infected parts, which are walled off, subsequently to be absorbed by phagocytic action; the peritoneal cavity thereby protected. The majority of the phagocytes extruded into the peritoneum for its protection come through the omentum, largely from the general circulation, but in part from the tissues therein existing; subsequently to be attached to the surface of this tissue, taken into the lymph-stream, and subjected to the cytolytic influences existing there. Lack of development of the omentum, or loss through operation, renders one less resistant to peritoneal invasion. Haemolymph-glands of the splenic type existing in its base supplement the spleen if the latter be removed or its functions interfered with."—GORDON K. DICKINSON, *Annals of Surgery*, Nov., 1906.

**Appendicitis a Recurring Disease.**—KARRENSTEIN has made exhaustive investigation about the question, how often appendicitis returns after the first spell, if the appendix is not removed, and comes to these conclusions: Appendicitis can be cured spontaneously by sloughing of the appendix, but such cases are rare and cannot be diagnosed. In more than half of the cases appendicitis returns if the appendix is not removed. No internal treatment can prevent the relapse of the attack. If the first spell occurs without fever, or with slight fever, the probability for further spells is greater than if the first spell occurs with very high fever. In 58%, the relapsing attacks are slighter than the first attack; in 28, more serious, and in 14%, about of the same character as the first attack. In 60% the second attack follows in-

side of a year, in 20% inside of the second year, and in 20%, later than in two years after the first attack. In about half of the cases of relapsing appendicitis, more than five spells occur. The more relapses, the less hope for spontaneous cure. These figures show clearly that after the first attack of appendicitis, the appendix should be removed, as this operation in the free interval is less dangerous than further attacks.—*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Vol. 16, Part 3.

**Fracture of Base of Skull.**—Fracture of the base should be treated with the conservatism which goes with the care of other fractures. Although these fractures are not open to the eye or the finger, they are even more liable to mobility and consequent injury of delicate adjacent parts than are fractures of the skeletal bones. Although fixation of basal fractures is not possible by any accurate application, because in the first place the line of fracture is not known, and in the second place may extend in several directions, it is nevertheless presumptive that a patient in bed would be less liable to jar or other kinds of force which might stir up the fracture or dislocate clots.

We, therefore, strongly urge as routine treatment in all cases of even suspected fracture of the base of the skull, rest in bed for full three weeks. Such a patient ought to be in a separate or small, dimly-lighted room, where little can attract his attention. He should have a single low pillow, or none, as he prefers. He should have as few visitors as possible, should take nourishment while lying down, and have practically nothing to attract his attention or to cause any excitement. Food should be easy to digest, cathartics should be used freely to prevent the least strain at stool, which causes cerebral congestion. Headache should be controlled by whatever sedative seems to work best in the given case and used even to an extent to keep the patient more or less somnolent.

This marked conservatism in the care of these cases must help to prevent startling deaths. Treatment which only keeps the patient in bed till his whims demand that he get up, is not rational or careful treatment. The fracture exists even if the patient feels perfectly well. A bone will not heal in three days.—CRANDON and WILSON, *Annals of Surgery*, December, 1906.



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

C. W. EDMUNDS, M. D.

**Germicidal Power of Silver Preparations.**—

DERBY undertook a laboratory investigation of the bactericidal power of various silver salts, realizing the difficulty of drawing practical conclusions from laboratory evidence alone. The solution to be tested was inoculated with a growth of *staphylococcus pyogenes aureus* and cultures were made from this mixture at stated intervals, the blood serum tubes being then incubated.

His results may be shortly given as follows:

Silver nitrate killed the aureus in from two to five minutes when used in from  $\frac{1}{2}$  to 2% strength;  $\frac{1}{2}$ % for 30 seconds prevented a growth for 24 hours.

Protargol, 2%-4%, usually killed in 3-5 minutes. Collargol, 4%, did not kill even after 20 minutes exposure. A growth was obtained at the end of 1 hour with 1%.

Albargin in 1% solution is irritating and did not kill with a 15 minutes' exposure. 10% to 20% killed in 2-5 minutes.

Ichthargan is very irritating and kills in 1/10-1% in from 1-4 minutes.

Argentanin, in 5% solution, gave about the same results as ichthargan.

Largin, also irritating, kills in 10% solution in from 2-5 minutes.

Argyrol is exceedingly weak. The aureus after exposure for one to two hours to solutions varying from 10% to 50%, showed growth, although there was usually a diminution in the number of colonies after exposure for twenty minutes. Its action was also very uncertain.

The argument that these newer preparations penetrate better than the silver nitrate DERBY thinks is not of any importance, as earlier investigations, which were confirmed by some experiments of his own, showed that when these solutions become mixed with body fluids they are all rendered practically inert, so that they would be useless even if they did penetrate.—*Bost. Med. and Surg. Jour.*, V. CLV, p. 341.

**Treatment of Spasmodic Bronchial Asthma.**

—HAYNES thinks spasmodic bronchial asthma is due to contraction of the bronchial muscles caused by a peripheral irritation acting on an unstable respiratory center. He then takes up the treatment of the condition which should be directed first, toward improving the general condition of the patient. The effects of climate differ with the different individuals, some doing better in high, dry places, while others stand low and humid localities better. Diet is of great importance; foods which distend the stomach being very injurious, especially when taken toward the latter

part of the day. Late meals are to be avoided. Arsenic, strychnine and the bromides may be given to lessen the instability of the respiratory center.

Potassium iodide, tincture of lobelia, stramonium, and belladonna each have a tendency to lessen the frequency of the paroxysms.

The nasal mucous membrane is often the seat of the peripheral irritation and Alexander Francis reports over 300 cases cured of the disease by cauterization of the anterior third of the nasal septum opposite and above the third turbinate.

The immediate relief of the attacks must be directed if possible toward the removal of the irritating cause, whether an emetic or cathartic may be indicated will depend on the case. Atropine and the nitrites are often useful and are usually given by the inhalation of the fumes from the burning leaves or of blotting paper which has been soaked in potassium nitrate. Morphine, 1-6 grain, which may preferably be given with atropine, 1-100 grain, rarely fails to give relief, but great caution must be exercised in its employment.

The antipyretics are sometimes of service, as is also caffeine, which will act as a central stimulant.—*The Practitioner*, V. LXXVII, p. 524.

**Diphtheria Antitoxin Given Intravenously.**

—Bisson reports the results obtained in the Plais-tow Fever Hospital by the intravenous injection of diphtheria antitoxin. The results showed that altogether 660 cases of diphtheria were treated at the hospital between October, 1904, and April, 1906. In this number there was a mortality of 92, or 13.94 per cent. Two hundred of the total were treated by the intravenous method and of this number 33 died, or 16.5 per cent.

"This result is partly due to the fact that all the very severe cases were chosen for the intravenous method." Out of the 200 cases there were nine tracheotomies with three deaths (33%) and there were 18 intubations with two deaths (10.1%).

As to the immediate effects of the injection, "Serum A" was given up because it caused circulatory depression. There was always pyrexia during the first three hours following the administration of the serum accompanied by chilliness and vomiting. A rash usually appeared sometime afterward, but in one case it made its appearance in two minutes.

"Serum B" was followed by pyrexia; in 20 cases only out of the 184 given this serum did the temperature rise over 2°. The rashes were never as severe with this serum as with "A," and there was no edema and at no time was there vomiting.—*Lancet*, V. CLXXI, p. 929.



## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Cerebral Decompression.**—Pallative Operations in the Treatment of Tumors of the Brain. Based on the Observations of Fourteen Cases. This interesting paper of SPILLER and FRAZIER which was read in the section on Nervous and Mental Diseases of the American Medical Association, cites the fact that such operations are not new nor their benefits heretofore unrecognized and reviews the literature of the subject showing many reports attesting relief of headache and pressure symptoms from such operations. Mental symptoms, too, have disappeared with the headache, even in cases in which the tumor could neither be removed nor located. "Exploratory trephining where diagnosis of location has been incorrect has taught us that cerebral decompression may give important results."

Relief of headache has been secured in some cases, even when the dura was not incised. In one of Putman's cases, relief of headache and optic neuritis was secured from a large trephine opening, although the bone was replaced.

SPILLER summarizes, as a result of his review of the literature, that the choked disc, headache, vertigo, nausea, vomiting, and, to some extent, the convulsions are all favorably influenced by this method of treatment, and gives his views, as a result of his experience and study, as follows:

"1. Palliative operations should be performed early in every case in which symptoms of brain tumor are pronounced and before optic neuritis has advanced far, especially when syphilis is improbable, or antisiphilitic treatment has been employed.

2. Partial removal of a tumor, especially of a glioma, is a questionable procedure.

3. Palliative operation does not cause atrophy of a brain tumor and probably does not arrest its growth; on the other hand, it probably does not hasten its growth.

4. Palliative operation is not to take the place of a radical operation when the latter can be performed without great risk to the patient.

5. In some cases, the symptoms of brain tumor disappear almost entirely or for a long time after a palliative operation. This result is obtained either by relief of intra-cranial pressure or by removal of some lesion (meningitis serosa, etc.) other than brain tumor and yet causing the symptoms of brain tumor."

FRAZIER reviews the field from the surgical standpoint, calling attention to the necessity of determining the operability of the case in hand; statistics of cases seen in early stages bring the only fair basis for deduction; and that two classes of cases require a decompressive operation, those in which the tumor cannot be removed in its entirety and those in which the tumor cannot be located. He thinks that in every instance the operator should intend first to attempt to expose the tumor if possible or expedient.

A history of fourteen cases is then given, in

eight of which freedom from pain was secured.—*J. A. M. A.*, Numbers for Sept. 8, 15 and 22, 1906.

**Some Experience with the Simpler Methods of Psycho-Therapy and Re-education.**—Impressed with what he had seen in Paris in the Salpêtrière, where Prof. Dejerine was treating the psycho-neuroses, especially hysteria and neurasthenia, by isolation and psycho-therapy, Prof. Barker of Johns Hopkins University, has sought, and with success, to make use of similar methods in the wards of the Johns Hopkins Hospital. Rest in bed, isolation, suggestion, persuasion, have been applied in a number of cases some fifteen of which are here reported.

Case 1. Hysterical attacks; headache; "fainting spells" with rigidity. No attacks after first week of treatment, the patient resenting isolation and agreeing to have no more "spells."

Case 2. Aerophagia; chronic constipation; hot flushes; symptoms disappeared after two weeks' treatment; discharged after one month apparently well.

Case 3. Hysterical crises; choreiform movements; hemianaesthesia tremor; rapid improvement.

Case 4. Hysterical crises; globus; dermatographia; contracted visual fields; rapid improvement.

Case 5. Hystero-neurasthenia; pathological character; extreme irritability, tremor of eye-lids; morbid fears, etc. She resisted treatment for some time, then rapidly improved.

Case 6. Neurasthenia; fatigability; incapacity for work. Cure.

Case 7. Fixed ideas of unworthiness; despondency; fear of insanity. Cured.

Case 8. Hysterical crises; cephalalgias; blepharospasm. Rapid improvement.

Case 9. Neurasthenia of two years' duration; hypochondriasis; fear of aortic aneurysm, etc. Rapid cure.

Case 10. Severe cephalalgias of many years' duration; emaciation; nervousness; rapid cure, gain of thirty pounds in weight.

Case 11. Nervous gastropathy, fear of gastric ulcer, headache. Rapid cure, gain of twelve pounds in weight.

Case 12. Insomnia, incapacity for work; fear of insanity; obesity. Rapid cure; weight reduced twelve pounds.

Case 13. Entero-neurosis; mucous colitis; nervous incontinence of feces; vasomotor disturbance; rapid improvement, gain of twelve pounds in weight.

Case 14. Neurasthenia, hæmorrhoids; anemia; nicotinism; nervous dyspepsia and diarrhoea; despondency. Rapid cure.

Case 15. Nervous gastropathy; epigastrolgia; nausea; belching; fear of gastric ulcer. Rapid cure.—Lewellys F. Barker in *American Journal of the Medical Sciences*, October, 1906.

## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**Concerning Pressure Sensitiveness of the Superior and Inferior Laryngeal Nerves.**—

Based on a series of 82 cases reported in detail Boenninghaus believes that neuritis of the superior and inferior laryngeal nerves produces a symptom complex which is characteristic and deserving of distinct recognition in laryngology. Pain in different gradations is the most prominent symptom. Sometimes confined to a feeling of pressure, it is often of a burning, stinging character. More marked cases cause a constant ache, often punctuated by shooting pain. In milder cases, pain may be noticed only on empty swallowing, which symptom in the absence of visible cause, the author considers almost pathognomonic. The pain is experienced sometimes in the entire throat, sometimes it is localized in the upper or lower half or the right or left side, as the case may be. From here it often radiates toward the ear or more rarely toward the chest. The condition never occurs before puberty and is most frequent between the period of the third and fifth decade. The great majority of cases appear in the course of an acute exacerbation of chronic laryngitis with or without tracheitis, which together with pharyngitis, is most often secondary to obstruction in the nose. In only thirteen of the eighty-two cases reported was the neuritis secondary to an acute process only. In three cases, however, there was no history or evidence of even an acute process, and therefore the neuritis was considered primary. Spontaneous cures occur, but recurrences are common on account of the chronic throat trouble.

Diagnosis rests entirely upon the presence of pressure pain over the typical areas,—for the superior laryngeal in the lateral half of the membrana thyrohyoidea, for the inferior along the side of the cervical part of the trachea. To examine the upper point, one stands behind the patient whose head must be thrown back and with the thumb and forefinger of the right hand presses simultaneously over the points of the exit of the nerves. Increased sensitiveness on one side is conclusive. To diagnose double neuritis, the pressure pain must be very marked. To examine the lower pressure point, still standing behind the patient, one presses firmly with the first and second fingers of both hands along the sides of the trachea until the vertebrae are felt. Pressure is then made first on one side and then on the other, but never simultaneously. After a short time sensitiveness becomes dulled

and if diagnosis is still in doubt it is advisable to wait until the next examination. The difference in diagnosis rests upon the absence of plausible cause of pain in the throat or larynx, paying especial attention to retention of secretion in tonsillar crypts, pharyngitis lateralis or granula, sensitive lymphatic glands and to the exclusion of hysteria, although the combination with the latter is possible. Local treatment consists in external massage thoroughly applied over the affected areas. In the worst cases galvanism may be added. Naturally the primary cause must be recognized and remedied.—*Archiv für Laryngol*, xvii No. 2.

**Pharyngitis Lateralis.**—The frequency and the distress caused by pharyngitis lateralis together with the slight attention devoted to it in laryngological works, has lead Uffenorde to present an excellent monograph on this subject. Histologically two forms are recognized, a hypertrophic in which the mucous membrane on the side of the throat following the plica salpingopalatina and the plica salpingo-pharyngea is hypertrophied, and the granular form in which only the follicles are involved. Acute and chronic forms of both varieties are recognized. Pain in the throat radiating toward the ear especially prominent at night, is the most frequent symptom. It may vary from a feeling of slight pressure to a severe ache. The sensation of a foreign body in the throat is very common, and a slight tickling may alternate with a racking cough. Fullness, even pain, in the ear, tinnitus and marked functional disturbances, due to interference with ventilation of the middle ear often divert the patient to the aurist. The voice is often affected by limitation of the palate movement as well as by secondary laryngitis. The reflex irritability of the throat is markedly increased. Etiology is practically identical with other forms of chronic pharyngitis, both local and constitutional, causes predisposing. Diagnosis is easy if one bears in mind that slight macroscopical changes can produce most unpleasant effects. Treatment consists in removing favoring factors, the use of some good gargle and douching the nasal pharynx with two per cent zinc chloride solution. If changes are more marked, cauterization of the folds with trichloroacetic acid at the intervals of about eight days is indicated. If very pronounced excision of the folds should be performed.—*Archiv für Laryngol*, xix No. 1.



## GENITO-URINARY SURGERY

Conducted by

W. A. SPITZLEY, M. D.

**Trans-Uretero-Ureteral Anastomosis.**—Indications for Ureteral Anastomosis are the following: 1. Any condition in an operative attack within the abdomino-pelvic area which necessitates an interruption of the continuity of the ureter will demand consideration for the restoration of the integrity of the urinary channel. 2. Operative casualties occurring within the abdomino-pelvic area which seriously impair or destroy the continuity of the ureter. 3. Any pathologic conditions existing in the abdomino-pelvic area which so encroaches upon the ureter, whether by extension or pressure, that its function is seriously handicapped or destroyed.

Extensive handling of the ureters and removal of one or both of them from their normal anatomic positions is made possible only because of a generous and more or less elastic blood supply. This has been worked out in detail by Sampson and, briefly, is as follows: From the aorta the renal, ovarian, iliac, uterine, inferior mesenteric, hemorrhoidal and inferior vesical arteries, there arise smaller arteries which through one set of branches, nourish the ureters themselves, and through another set of branches nourish the tissues adjacent to and surrounding the ureters; all of these branches being freely anastomotic; any amount of manipulation is permissible then without fear of necrosis of the ureter, provided that the ureter is not entirely stripped from its contiguous tissues.

The various methods which have been employed to accomplish ureteral anastomosis are in general somewhat similar to those used in intestinal work: (1) transverse end to end; (2) oblique end to end; (3) invagination; (4) lateral implantation. All of these methods have been shown, in the course of much experimental work, to be anatomic possibilities, and most of them physiologic successes. With one or two exceptions the anastomosis has been an intra-peritoneal one, necessitating, therefore, the withdrawal of one or both ureters very materially from their usual resting places and proportionately dispossessing them of their normal blood supply. The author believing, then, that if a technique could be devised that would more nearly protect the ureter from injury and involvement with other abdominal structures and in addition would conserve the normal blood supply, it would be a great gain, endeavored to ascertain how readily such anastomosis could be made, maintaining the field of operation entirely retroperitoneal. In the cadaver, this was done: In one case the ureter was drawn over to its fellow through the connection tissue be-

tween the vena-cava and aorta posteriorly and the peritoneum anteriorly; in the other experiment the ureter was drawn over between the vertebral column posteriorly and the vena-cava and aorta anteriorly. The actual work was done through a short longitudinal incision in the peritoneum over one ureter; this incision was subsequently closed and the entire field of operation was therefore retroperitoneal.

While retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to vena-cava and aorta, is admittedly more difficult of accomplishment than intraperitoneal trans-uretero-ureteral anastomosis, yet it must be conceded that owing to the shorter hiatus to be bridge, with proportionately less disturbance of the ureters and their blood supply, their probable subsequent vitality and power of function are enhanced. It is also probable that, owing to the replacement of the ureters within beds which are closely allied to, if not in fact actually identical with, their normal surroundings, the interference with their blood supply will be reduced to the minimum, and the possibility of nourishment to be derived from contiguous connective tissue and the peritoneal covering must not be ignored.

The author's method is, therefore, an anatomic possibility; but whether it is a physiologic success must still be determined. The author's conclusions are as follows:

(1) The blood supply of the ureter is ample, of which probably the peri-ureteral arterial plexus is the most essential factor.

(2) Operative procedures, which conserve the blood supply, in particular, the peri-ureteral arterial plexus, are ordinarily satisfactory.

(3) When the integrity of the ureter is impaired, restitutorial, rather than destructive, surgical measures should be followed.

(4) Of which restitutorial measures the various methods of uretero-ureteral anastomosis are recommended.

(5) Intraperitoneal trans-uretero-ureteral anastomosis is an anatomic possibility; it is also a physiologic success.

(6) Retroperitoneal trans-uretero-ureteral anastomosis, whether anterior or posterior to the aorta and vena-cava, is an anatomic possibility. (Further experimentation is essential in order to prove that it is a physiologic success). The route followed is the shortest path between the two ureters. The technical difficulties are not excessive. It is highly probable that this method impairs the ureteric blood supply less than any other method in vogue.—SHARPE, *Annals of Surgery*, November, 1906.



## OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

**Tuberculous Labyrinthian Suppuration.**—HERZOG, Munich, mentions that tuberculous middle ear suppuration frequently penetrates into the inner ear. The promontorium and both windows seem to be especially apt to let the suppuration wander from the middle ear to the inner ear. While, as a rule, inflammatory processes in the labyrinth show more or less fulminant symptoms on the part of the vestibular apparatus, we miss disturbances of that nature, entirely, in tuberculous processes, or they are only intimated. Generally, they cannot be used for diagnostic purposes. This fact is rightly, we assume, explained by the extremely slow and gradual extension of the disease process. The affected nerve elements, for this reason, lose only very gradually their excitability, so that the diseased organism finds ample time to cover the defect, step by step, by the auxiliary apparatus. Statistics concerning the frequency of tuberculous labyrinthian affections are only found in the fundamentally important works of Habermann. The examination of 43 temporal bones of tuberculous cadavers established a tuberculous affection of the hearing organ 13 times. Six times the labyrinth took part in the disease. Three times it was almost destroyed by caries. This shows that 46.1 per cent of tuberculous middle ear suppurations were complicated by labyrinthian suppuration.

So far as can be seen from Habermann's communications, he speaks of 37 individuals who had died of tuberculosis, i. e., 16.2 per cent of all those tuberculous patients had labyrinthian suppuration. —(*Transactions of the German Otological Society*, 1906.)

**The Shape of the Auricle in the Insane and Criminals.**—BLAU-GOERLITZ examined carefully 210 insane (130 women; 80 men), 206 normal people, 243 prisoners and 20 prostitutes. Blau comes to the conclusion that with insane and criminals, as a rule, a larger lamina auris is present, i. e., an auricle which is more perfect in the sense of Schwalbe. This means an auricle which comes nearer to recollections of animal forms as we find them during the embryonic period. This appears as a somatic sign of degeneration in the strictest sense (*ibid*).

**Clinical and Bacteriological Observations in Acute Middle Ear Suppurations.**—KUEMMEL, Heidelberg, considers the parts played by the spe-

cies and virulence of the causative microbe, and on the other side the otoscopic type in the course of a genuine inflammation, and comes to the following conclusions: (1) In purely meso tympanic middle ear inflammation, we can expect a mastoiditis which can be cured only by operation, or the appearance of other complications, only under especially extraordinary circumstances, namely, when the power of resistance of the organism or the local power of resistance of the ear and its adjacent parts is especially injured. (2) On the other hand, the probability of a mastoiditis which cannot be cured without operation, is very strong in those cases which show the characteristics of the epitympanic type, i. e., circumscribed inflammation, bulging or granulom formation in the region of the posterior upper quadrant of the drum membrane. Our small material shows ten operations, compared with seventeen cures without operation. (3) The kind of the causative organism is not without importance. The staphylococci, even if they are very virulent, do not cause, as a rule, a mastoiditis which does not heal up spontaneously. Pure pneumococcic infection is also not so very apt to do this. If the streptococcus, the pyogenes, as well as the mucosus, is causing the inflammation, the chances for a cure without or with an operation are about equal. (*ibid*.)

(Remark of Reviewer. It must be taken for granted that in bringing these results before the otologic society, Kuemmel is aware that he addresses otologically trained physicians. A superficial perusal of these data or a blind adherence to these findings might induce the physician who has not a great experience with cases of this nature to delay surgical interference until it may be too late. Only continual and painstaking observations will allow us to abstain for the time being from surgical interference, in suspicious cases, involving, of course, the necessity to be always ready to act quickly.)

**A Method to Operate for Othaematoma.**—SELIGMANN (Frankfort on the Mein) comes to the conclusion that the cover of the othaematoma consists mostly of cartilage which has become useless to form the shape of the concha. The connective tissue shrinks when the exudate is resorbed. The cartilage cannot follow and those elevations and depressions are formed which produce the known rough and uneven form of the healed othaematoma. Consequently the whole cover must be extirpated with the exception of the normal skin. *Arch. f. Ohrenheilkunde*, October, 1906.

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## Original Articles

### PUERPERAL INSANITY\*

HERMAN OSTRANDER, M. D.,  
Kalamazoo.

In dealing with any phase of the subject of insanity, the vexatious question of classification is pretty apt to come up. The present indications are that the term, puerperal insanity, as descriptive of a definite nosological entity will soon become obsolete. The most recent writers, especially American writers, do not refer to the term at all in their text books, except to state that it represents no distinctive psychosis; that the mental disturbances that occur during pregnancy and that follow parturition differ in no essential characteristics from those precipitated by any other exciting causes. These statements are probably true in the main. It would probably be impossible, without a previous knowledge of pregnancy to diagnose any given case of puerperal insanity on the symptoms presented. Yet, those who have had much to do with such cases will always be anxiously anticipating in their patients certain definite symptoms which accompany puerperal psychoses more constantly than any other form.

*Frequency*—Clouston of the Royal Edinburgh Asylum, reports in 1897 among 1,549 insane women that 5 per cent were

puerperal, 4 per cent lactational, and 1 per cent gestational cases, 10 per cent in all. Hoche of Hamburg, in 2,454 insane women, found 211 puerperal psychoses, 8.6 per cent of the total number. Gundry, in 1860, found in the United States that among 11,762 insane women 8.9 per cent of the cases had begun some time during the puerperal period. In the New York State Asylums, from 1888 to 1895, among 8,791 women admitted 427 or 4.85 per cent were puerperal cases. Berkley, in 1900, quoting the above statistics, states that these figures show that the puerperal insanities are on the decrease and thinks that the diminution is due to better aseptic conditions at the time of delivery and to better hygienic surroundings. The trouble with statistics collected from public asylums is that percentages based on the total number of cases admitted are apt to be misleading. The average age of admission to these institutions is constantly increasing and proportionately fewer women of the child-bearing period (18 to 40 years of age) are admitted each year.

At the Michigan Asylum for the Insane for the ten years ending January 1, 1870, the total number of women admitted was 470. The total number of

\*Read before the Kalamazoo Academy of Medicine, November 13, 1906.

puerperal cases was 32, about 7 per cent of the admissions. For the ten years ending November 1, 1906, the number of admissions was 1,610. The number of puerperal cases was 63 or 3.9 per cent of the admissions. These figures show an apparent decrease of 3.1 per cent in 25 years. But in the first decade mentioned 331 of the 470 admissions were of the child-bearing age and the proportion of puerperal cases to this number was 9.6 per cent. During the last ten years only 723 of the 1,610 admissions were of the child-bearing age and the proportion of puerperal cases to this number was 8.7 per cent, showing a decrease in the 25 years of less than 1 per cent. I have attempted in this paper to analyze thirty cases admitted during the last five years. Of these thirty cases, nine were gestational and twenty-one post-partum cases. All were married. Four cases were under 20 years of age; 16 between 20 and 30, 9 between 30 and 40, and 1 was 40 years of age.

*Time and Mode of Onset*—Of the gestational cases no definite data are obtainable, but the probability is that in nearly all the cases the symptoms began during the latter months of pregnancy. Of the puerperal cases, the symptoms began immediately after confinement in six; in one week in four; in two weeks in four; in three weeks in one; in four weeks in one; in five weeks in one; in six weeks in four. The onset was sudden in ten cases, gradual in 17 cases; unknown in three cases.

*General Health of the Patient*—Before pregnancy was very good in 14 cases; poor in 9 cases; unknown in 7 cases.

*Health after Confinement*—was good in 6 cases; poor in 23 cases; unknown in 1 case.

*Character of the Pregnancy*—Pregnancy was normal in 16 cases; difficult in 11; unknown in 3.

*Number of Confinement*—Eleven cases were primiparæ; in three cases the mental onset occurred during the second pregnancy; in 5 during the third pregnancy; in 4 during the fourth pregnancy; in 1 at the sixth pregnancy; in 1 at the ninth pregnancy, and in five instances the data were unobtained.

This does not harmonize with Clouston's statistics which state that the majority of cases are primiparæ.

*Hereditary Predisposition*—Fourteen cases had insane and neurotic relatives.

*Acquired Predisposition*—Twenty-one cases presented neurotic personal histories. Nine healthy personal histories.

*Psychosis*—Four were cases of delirium due to septicemia; 4 of confusion and depression due to toxemia; 10 were manic depressive cases of the depressed type; 8, manic depressive cases of manic type; 4 were cases of dementia præcox.

*Termination*.—Recovery occurred in 16 cases; two were improved; 10, unimproved; two died. Of the 16 recoveries, four have had subsequent attacks, not associated with puerperium. One of these four had previous attacks, one of the attacks associated with child-birth, the others not.

The percentage of recoveries over (50%) as compared with Clouston's statistics (75) seems rather low, but I think the figures more accurately represent the percentage of recoveries in this country at the present time.

*Duration*—Two recovered in five weeks; two in two months; three in three months; one in four months; two in five months; two in seven months; three in eight months; two in 15 months.

In the record of blood examinations of eleven cases, the percentage of hemoglobin was below 90 in eight cases. It was as low as 30 in one case with a blood count of 1,720,000 reds, and 53 in one case with a blood count of 3,200,-



000. In the balance of the cases the red blood count was normal; the hemoglobin was below normal, varying from 65 to 85 per cent.

In all cases, defective elimination was evidenced by the concentrated urine, dry skin, furred tongue, heavy breath, sordes on teeth and mucous membrane, constipated bowel, etc. The mental symptoms of course varied with the form of psychosis, but certain symptoms were pretty constant in a large percentage of the group.

A very common mode of onset, especially in depressed and confused cases was indifference to occurrences in surroundings, inattention to the wants of the babe, neglect of usual duties, etc. A very common symptom manifested early in the disease, generally before the patient was brought to the asylum, in fact, a symptom that emphasized to the relatives the necessity of placing the patient under asylum treatment, was the impulsive attempts at suicide or attempts to take the life of the child. These impulses were manifested in both the maniacal and depressed cases. Hallucinations of hearing and of vision were frequent. In the manic-depressive cases the symptoms were more acute and recoveries occurred rather more promptly than in the same form from other causes.

The majority of recoveries occurred at about the close of the normal period of involution lending some ground to the opinion, held by some recent writers, that these are toxic insanities, the toxemia resulting in part from the absorption of waste products of retrograde metamorphosis incident to involution.

The following is an abstract of the history of a case, showing quite characteristic symptoms.

Case No. 9008, admitted February 22, 1902. Age 22. Second pregnancy. Family history, negative. Personal neurotic history, positive. At the time of her first menstrual period she had a severe attack of "nervous prostration" and was

treated in the U. B. A. Home in Grand Rapids. Her husband stated that when she went there she was too ill to walk. On September 4, 1901, she was married. About four days after marriage she again had nervous prostration and was sick for two months. She has never fully recovered from these attacks. In November, 1902, she had a severe attack of malaria fever and during her illness, gave birth to a babe. Following confinement she had severe choking spells. About four weeks after the birth of the child she became indifferent to her surroundings and despondent; thought she would never get well again. It became difficult for her husband or any of her relatives to do anything to please her. She manifested delusions of poison, and was indifferent toward her child. November 10, 1902, she was taken to the University hospital at Ann Arbor. Three or four days after her arrival at Ann Arbor she became violent; thought she had poisoned someone; these violent spells continued during her stay at the hospital.

She is brought to the asylum from the depot in an ambulance. She is a frail, little woman, light complexion, blue eyes, light hair; musculature of poor tone. The patient refuses to enter into conversation, replying to only a few questions. On the evening of the same day, she becomes very restless, constantly moving about in bed and moaning as if in pain. Temperature, 102.2. Heart action rapid and weak. Pulse rate 130 per minute. Breath is foul; tongue furred and dry. There is action tremor due to exhaustion involving most of the muscles of the body; deep reflexes are much exaggerated. The colon from the region of the ilio-cecal valve to the sigmoid flexure contains hardened fecal masses, easily palpated.

Examination of the blood shows 4,800,000 reds, 10,280 whites; hemoglobin, 60 per cent.

Urine: Specific gravity, 1034; strongly acid; contains crystals of oxalate of lime, epithelial and mucous cells and a few pus cells.

She is placed in a neutral sheet pack, and shortly afterwards becomes quiet and falls asleep.

Feb. 23, 1903. The patient slept all night.

Feb. 24. She is agitated during the first half of the day; enemas failed to relieve the condition of the bowels.

Feb. 25. The patient slept all night in a neutral sheet pack. A large enema today is followed by copious evacuation of hardened fecal matter.

Feb. 26. She again rested all night in a neutral sheet pack. Another large enema of glycerine and oil is followed by a large evacuation of hardened feces.

Feb. 28. Massage is prescribed. The patient eats very well; is restless during the day but sleeps very well at night.

March 2. She is becoming more comfortable; is taking tonic hydratic treatments.

March 16. The patient is not so comfortable; agitation is increased. She is found to have an infected finger. Temperature varies from 104.6° to 105.6°. She is given two grains of calomel in divided doses. Hand is dressed with saturated solution of boric acid. Frequently changed.

March 18. The infected finger is incised. No pus. The swelling is extending up the wrist and arm.

March 22. Free incision is made in the hand and considerable pus evacuated. The patient is quite restless and is developing bed sores; resists attention with all her strength.

March 25. She is becoming quieter. Temperature is subsiding.

April 12. She is showing marked improvement physically. Mental condition remains very much the same. The patient talks incoherently and apparently has painful hallucinations of vision.

July 7. Agitation is subsiding. The patient's attention can be more easily diverted, answers a few more questions rationally.

Aug. 18. Is very much improved. She is somewhat suspicious, however, and seems very much impressed with the idea that she is always to remain here. She is intensely homesick.

Aug. 28. Improvement is taking place rapidly. She is homesick but seems willing to remain as long as we think it best for her. On this date, in conversation with her attending physician, the patient states that she has no recollection of going to Ann Arbor or of her husband coming to the asylum with her. She thought that she was brought here to be killed, and when taken to the treatment room and put on the table for massage, she felt sure that she was to be cut in pieces. She had most distressing hallucinations of sight. At times she could see armed men drag her husband out on the street, naked, and apply hot bricks to his feet and legs. She saw her father nailed to the cross by armed soldiers, who drove spikes through his hands and feet. Frequently she saw what seemed to be great streams or rivers of blood hurrying down the street and

threatening to engulf her. At other times she saw trains of cars pushing toward her while she was standing on the track unable to get out of the way.

Sept. 10, 1903. She was removed by her husband, sound in mind and in very good physical health. About a year after her removal from the asylum a letter was received from her stating that she was in excellent health and had passed through another pregnancy without any untoward symptoms.

The following is a history of a Manic Depressive case in a patient who had had previous attacks of excitement not incident to the puerperal state. The present attack was precipitated by childbirth.

Case No. 9165. Admitted July 11, 1903. History of the family, negative.

Personal History: The patient has always been subject to attacks of hysteria. At 16 she had a period of excitement precipitated by a religious revival, lasting for a few weeks. One week after confinement the patient became suddenly disturbed mentally; was very talkative, demanded a great deal of attention, insisted upon her wants being supplied almost immediately, was very destructive to her clothing and her language was very profane and obscene; pulled out her hair and showed violent tendencies toward her mother. Hallucination of sight and hearing were present; refused food because she said it was unclean.

Physical Examination—Showed a frail young woman about 23 years of age, somewhat emaciated, musculature of poor tone, some milk in the breasts, tongue heavily furred; breath foetid, teeth decayed, bowels obstinately constipated. Examination of the blood—5,800,000 reds, 6,092 whites. Hemoglobin 75 per cent.

Examination of Urine—negative.

Mentally the patient is elated and incoherent, has hallucination of hearing, talks to imaginary people by telephone and shows marked psychomotor excitement.

This patient passed through a state of intense mental excitement during which she was destructive, violent, kept her room in disorder and required the constant special attention of a nurse. She was treated with eliminatives and hydrotherapy. Improvement was rapid and on August 5th, twenty-five days after her admission, she was

apparently recovered, and was discharged from the asylum.

Eleven days after her removal she was brought back in the middle of the night in about the same condition that she was in at the time of the first admission. The husband stated that three days previous he noticed that she talked rather queerly. The next day she appeared better until noon, when she became very much disturbed, took chairs, bedding, curtains out of the house and tore up the carpet. The next day she went down town and gave her baby away, went to the railroad foreman and asked for a pass that she might come back to Kalamazoo. On being refused the pass she returned and claimed her baby, went home, locked and barricaded the doors, tipped over the stove, tore down the pictures and stacked everything in the middle of the floor. Finally the police persuaded her to unlock the door. She was then taken to the hospital ward of the jail. She had a great dislike for her husband and talked constantly of obtaining a divorce from him.

From this time to the middle of September, she was excited, maniacal, hallucinated and violent. On September 18th she began to show some improvement which continued until November 26th, when she was again discharged, recovered. She has remained well ever since.

Interesting features of this case are, first, that it illustrates the fact that patients who recover early and suddenly from maniacal excitement are not as hopeful as regards permanency of recovery as are those who recover gradually; second, that no symptoms whatever were manifested that would distinguish the mental upset from the maniacal excitement occurring during the course of an ordinary manic depressive insanity.

The points of greatest importance to the physician in puerperal cases concern the question of prophylaxis. Pregnancy and parturition in normal women are physiologic processes, and although accompanied by extensive functional, and even morphologic changes involving nearly or quite every organ and tissue in the body, healthy, stable, well-balanced women are able to stand the ordeal without mental upset. To wo-

men of neurotic, unstable predisposition, inherited or acquired, these conditions act as exciting causes of mental disease. My statistics show a neurotic history in 70% of the cases. It is this class of women that needs special attention of the physician during the period of gestation. Such persons have to be prepared for the special work thrown upon them during this period. The work of the heart, the liver, kidneys, skin and lungs is increased to meet the increased demands for nutrition and elimination and added to this is the preparation for the entirely new function of lactation.

In as much as there is a well-founded, growing belief that the majority of these insanities are essentially toxic, the importance of looking after the emunctories needs to be greatly emphasized, and the most rigidly aseptic surgical principles should govern the accouchement and nursing of such cases. During gestation, and after confinement any evidence of mental confusion, apathy, indifference toward environment, or neglect of child should be regarded with much apprehension for these are the precursors of an acute onset of mental symptoms. The special tendency in these cases to suicide should not be forgotten for an instant, and the woman who has shown any suicidal tendency should never be trusted for a minute. I have seen this warning unheeded more than once with disastrous results. Sometimes the suicidal impulses constitute the only symptoms. If acute symptoms develop suddenly with high temperature, you have probably a mastitis or a septic uterus to deal with which may require operative interference. In such cases the mental symptoms are simply those of excitement or delirium due to septicemia and do not constitute a true psychosis. Such persons should not be declared insane any more than should a person suffering from delirium with typhoid fever be declared insane. Many such cases, how-



ever, find their way to the asylum.

Patients who show unmistakable symptoms of insanity cannot be too quickly removed to some properly equipped institution. The treatment of such cases depends upon the psychosis. The majority of all of them need eliminatives, good nourishing diet in abundance, forced if necessary, fresh air and

quiet. Very few drugs are necessary. To quiet intense excitement and restlessness, a neutral sheet pack or a continuous neutral bath will often suffice. Occasionally a hypodermic of 1/100 grain of hyoscin hydrobromate will be necessary. These measures, together with some simple tonic, are all the patient requires.

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## CESAREAN SECTION. HISTORY OF A SUCCESSFUL CASE\*

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CHARLES HARVEY RODI, M. D.,  
Calumet.

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The Cesarean section is a surgical operation by which the child is delivered from the uterus by an abdominal section. It is generally assumed that Cesarean section takes its name from Cesar who is said to have been delivered in this way, but authorities do not seem willing to accept this as a fact.

This section was recommended in cases where pregnant women died undelivered, long before it was resorted to upon the living woman. The Romans had a law ascribed to Numa Pompilius which forbade the burial of a pregnant woman before the fetus had been taken away from her, and this was generally done through an abdominal incision. This wise and prudent law was adopted throughout Christendom, and it still flourishes vigorously in the Roman Catholic Church. Pliny stated that the celebrated Scipio Africanus and Manilius were saved under Numa's law. The precise period at which the operation was first performed on the living patient remains undetermined.

The history of Cesarean section may be said to extend over three periods.

The first period lasted from the earliest times to the beginning of the sixteenth century. During this period the operation was occasionally resorted to after the death of the mother in the hope of saving the child, but it is improbable that it was practiced upon the living woman, although several authorities are inclined to believe that certain passages in the Talmud may be so interpreted.

The second period extends from 1500 to 1876, when Porro recommended that the older operation should be supplemented by the removal of the uterus. According to M. C. Lage, the first authentic case was reported by Nicolas de Falcon, in 1491. According to Caspar Bauhin the first Cesarean section upon the living woman was performed in 1500, by Jacob Nufer, a castrator of pigs in Switzerland, who operated upon his own wife, saving her life after she had been given up by mid-wives and barber-surgeons in attendance. It is said that Nufer operated many times, but the fact that the woman had five subsequent spontaneous labors would lead one to believe that it probably was the removal

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\*Read before the Upper Peninsula Medical Society.

of an extra-uterine pregnancy from the abdominal cavity. In 1581, F. Rousset published a treatise on this subject with the report of a collection of several successful cases, some of them no doubt cases of advanced extra-uterine pregnancy. This article acquired considerable celebrity and directed the attention of the profession to the possibility of performing the operation upon the living woman. The surgeons were so emboldened by Rousset's monograph that the operation was often performed without any indication whatever, and became so popular that a Dominican Friar affirms that it was as common in France as blood letting in Italy. However a reaction took place. Rousset was viciously attacked, public sentiment changed, and Cesarean section would have fallen into oblivion if Caspar Bauhin had not come to the rescue with fresh proofs in its favor. The first authentic Cesarean section was probably done in 1610 by Trautmann, of Wittenberg, Germany, in a case of hernia of the gravid uterus. It was occasionally performed upon the living subject up to 1777 when symphysiotomy supplanted it, and was afterwards taken up again when the latter fell into disrepute.

During all these years, up to 1882, the mortality was frightful; 75% (Mundé); 54% Mires' Collection of 1,600 cases up to 1867; 52% United States collection by Harris.

For 90 years, between 1787 and 1877, there was not a single successful case in Paris. During all this period the uterus was simply incised. The uterine wall was not sutured and retraction and contraction of the uterus were relied upon to check and control hemorrhage. The high mortality was due to hemorrhage or infection.

What is known as the third period began in 1876 when Porro advised amputating the body of the uterus and stitching the cervical stump into the lower

angle of the abdominal wall. This improved method aided in the control of hemorrhage and the prevention of infection, and was so satisfactory that Harris, in 1890, was able to collect 264 operations from the literature. It remained however for Sänger, in 1882, to still further perfect this method by sewing up the incision in the uterus. This, together with the improved technic at this time, completely changed results, the mortality being greatly decreased, so that today the operation is more practical and can be applied under certain conditions that heretofore would not have been considered because of the danger.

### Indications

A pelvis which is so contracted as to offer a serious mechanical obstruction to labor is the most frequent and important indication for Cesarean section. It is absolute or relative; *absolute* when the contraction is so pronounced that the birth of the child cannot be effected by any other means. Authorities tell us that with a living child and the true conjugate diameter of  $2\frac{5}{8}$  inches extended to  $2\frac{6}{8}$  inches, or less, or a generally contracted pelvis of  $2\frac{3}{4}$  to 3 inches or less, or in case of a dead child, and the true conjugate diameter  $1\frac{3}{4}$  inches to 2 inches, Cesarean section is absolutely indicated.

The indication is *relative* when the contraction is so great as to render spontaneous labor impossible. If the conjugate diameter is not less than  $2\frac{4}{5}$  inches, not an over large child can be delivered after symphyseotomy; if less, it is a hazardous operation unless the head is very small. Symphyseotomy competes here with induction of premature labor in a pelvis whose conjugate diameter measures  $2\frac{4}{5}$  inches, or more. Further, the indication is still relative and Cesarean section enters into competition as an alternative with craneotomy,

when the child is alive and the conjugate diameter runs from 2 or  $2\frac{1}{8}$  to 3 inches.

In view of the excellent results which now follow Cesarean section, and the fact that the spontaneous delivery of an ordinary full term child is out of the question, when the conjugate vera is less than 7 centimeters ( $2\frac{3}{4}$  inches) the upper limit of absolute indications has been extended to that point.

Williams, at the American Gynecological Society, advocated that the relative indication be likewise broadened in appropriate cases and that the upper limit be placed at 8.5 centimeters ( $3\frac{1}{3}$  inches) to 9 centimeters ( $3\frac{1}{2}$  inches), in generally contracted pelvis. He says in cases of this kind the course of labor will depend upon the size and consistency of the head and the character of the uterine contractions. Given two women with pelvis the same size, one may have spontaneous labor, while the other may require Cesarean section for delivery. In the latter case the operation is taken primarily in the interest of the child, instead of resorting to high forceps, version or craniotomy. The patient is allowed to go into labor, to complete the first, and enter the second stage. In most cases the head engages and spontaneous delivery follows. On the other hand, if signs of engagement are wanting after one hour of strong second-stage pains the propriety of performing Cesarean section should be considered, provided the patient has not been subjected to repeated vaginal examinations, is in good condition, and is in the hands of a competent operator. By so doing, nearly all the children will be saved and quite as many mothers as after difficult high forceps operations or craniotomy. If, however, these conditions cannot be fulfilled, Cesarean section becomes a very dangerous procedure, and should not be considered. In such cases the patient should be allowed

to continue in labor until a definite indication for its termination arises, when high forceps, version or craniotomy should be resorted to, according to the exigencies of the particular case.

Cesarean section on the living woman should be undertaken in cases in which there is no prospect that the fetus, even after embryotomy, can be extracted by the natural passages with less danger to the mother. In pelvis about  $2\frac{5}{8}$  inches in diameter, with a living child, and  $1\frac{3}{4}$  inches to 2 inches, with a dead child, Cesarean section is necessary to save the mother's life. Here the indication is absolute, because no other less dangerous alternative presents itself.

In pelvis whose conjugate diameter is over  $2\frac{5}{8}$  inches, symphyseotomy, the induction of premature labor, or embryotomy, being simpler and safer for the mother, must be considered. Here the indication is relative.

If the conjugate diameter is more than  $2\frac{1}{4}$  inches, it is always possible, by means of craniotomy, to bring away the child through the natural passages. If the child is dead, perforation is preferable, if alive, one has to choose between perforation and Cesarean section. Zweifel expresses the opinion of today in the following words: "Cesarean section must be preferred to craniotomy in these cases, because it renders it possible to save the life of both mother and child."

Donohue (*American Jour. Gyn. and Ped.*, August, 1903), says: "Conservative Sänger, Cesarean section should be performed in cases of (1) complete placenta previa; (2) placenta previa in the absence of severe hemorrhage or rigid os; (3) when there is a history of previous operative delivery; (4) it should be considered in all cases in which version is indicated, if a reasonably skilled surgeon is available and only an ordinary obstetrician; (5) all these indications are based on a probable viable



child—28 weeks of gestation and upwards.

Cesarean section has been recommended in puerperal eclampsia when delivery is urgently indicated. It is not well proven however that eclampsia de-

enlarge the indications for Cesarean section, and to put forth new indications—since the greatest dangers of the operation, sepsis, shock and hemorrhage, are now quite well under control. The danger to the child should not be increased



mands immediate delivery; the results after rapid deliveries by Cesarean section, vaginal Cesarean section and accouchement forcè have not come up to expectations, and cases die frequently where convulsions come on after delivery. There is a growing tendency to

and probably its life sacrificed when it can be saved without exposing the mother to any additional risks.

Our decision for operation should be based on the contraction of the pelvis and the size and reducibility of the child's head, unless the obstruction is

due to some other cause, as cancer, or the presence of a tumor in the pelvic cavity. Every practitioner should be able to form a fair estimate of the amount of contraction of the pelvis, to say before labor has begun, or during the early stages of labor, that the diameter of the pelvis is or is not less than three inches. Not only should he be able to form an estimate of the amount of contraction, but he should be qualified to form an opinion as to whether it will be impossible for the child to pass, and also whether, under the difficult circumstances under which he may be placed, it would not be better to prepare for Cesarean section or to send the patient where Cesarean section could be safely performed, rather than to extract a mutilated fetus through a minimum diameter.

With a diameter of  $2\frac{5}{8}$  or  $2\frac{3}{4}$  inches, where engagement of the head is impossible, no one should hesitate to advise Cesarean section, although there will always remain cases, as where the child is dead or a subject of hydrocephalus, in which craniotomy may be resorted to.

Experience alone will enable one to avoid extreme measures. In cases where the conjugate diameter is 3 inches, the skilled practitioner will weigh the chances between premature induction of labor and symphyseotomy. There can be no question that Cesarean section is a highly dangerous operation, but the danger it should be remembered depends, for the most part, on delay, and death most frequently results not so much from the operation as from injudicious and prolonged attempts to extract the fetus through a deformed natural passage. Success depends upon prompt interference before the patient is exhausted, as then there is less danger from hemorrhage, delayed shock or peritonitis.

### Contraindications

Cesarean section should never be per-

formed when the child is dead or in serious danger, or if the mother is infected, in poor condition, or with surroundings that render an aseptic operation impossible. Under such circumstances, craniotomy is the operation of choice. Cesarean section should not be undertaken unless a living child is earnestly desired. Again it is usually contraindicated when the patient has been subjected to repeated vaginal examinations during labor, by one whose technic is questionable, even though no signs of infection are apparent at the time. If, however, Cesarean section should be decided upon under these circumstances, the entire uterus should be removed after the extraction of the child.

### Operative Technic

Conservative Cesarean section when undertaken for the absolute or even for the relative indication, if previous labors have repeatedly ended in the birth of dead children, should be performed at an appointed time, a day or two or, even longer, prior to the expected onset of labor. In many instances it happens of course that the patient is not seen until well advanced in labor. Moreover in border cases sufficient time should be given to demonstrate what nature will do. Frequent vaginal examinations should be avoided. If the head does not engage after one hour of strong second stage pains and there appears no likelihood of spontaneous delivery, the Cesarean section should be promptly performed as the prospects for recovery diminish rapidly with every hour after the onset of the second stage of labor.

### History of a Case of Successful Cesarean Section

Mrs. M., aged 29 years; height 54 inches. Her father, a Frenchman, was tall. Her mother, a German, is a woman of ordinary height; one brother died of phthisis, one brother and two sisters are living.

Nine years ago, she was delivered of a male

child. After being in labor a long time, and after several unsuccessful attempts with the forceps, symphyseotomy was performed, and a male child, alive, delivered. The pubic bones had to be wired before they would unite. It was about a year before she could walk.

I was called in consultation with her family physician in October, 1905, to see Mrs. M. in her second pregnancy. She had pains and other symptoms of labor. She was about 8 months pregnant. The conjugate diameter was  $1\frac{3}{4}$  inches, as measured with the pelvimeter. She was immediately sent to the hospital to prepare for Cesarean section.

The pains died away during the night, and I decided to operate just before her expected time. Accordingly on November 25, 1905, I operated. A male child was delivered by the abdominal route.

Child was put to the breast five hours after delivery. Soft diet for about 10 days. She made an uneventful recovery and left the hospital in one month from date of operation.

The illustration is from a photograph taken eight months after the operation. The mother measures 54 inches in height and the child 27 inches.

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## THE THERAPEUTIC VALUE OF RECTAL TAMPONS\*

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J. A. MacMILLAN, M. D.

Detroit.

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Before taking up the more practical question for consideration in this paper, there is a matter of physiology to which I shall devote a little attention. There can be no better credential for the soundness of any measure than its correspondence with the processes of nature. Accordingly I propose to call attention to a portion of intestinal physiology in order the better to describe the therapeutic value of rectal tampons.

It seems to be pretty well established that the only agent that produces and can continue to produce normal healthy peristalsis in the intestine is distention. In other words, the stretching of the intestinal muscle by the contents of the bowel is the natural agent that brings on peristalsis. It is not within the scope of this paper to discuss this subject in detail, and I shall only offer a few remarks in support of this proposition. An abundant clinical experience with the use of cathartics seems to favor the view

that chemical irritation does not produce normal peristalsis, but on the contrary to pervert or destroy it. It is well known that the chemical reaction of the colonic contents may vary greatly without producing any interference with peristalsis. The observations of physiologists still more conclusively demonstrate that the normal stimuli of peristalsis is mechanical and not chemical. The following statement from Herbert Spencer's *Principles of Biology* expresses very well the conclusions of biologists on the point. In speaking of the development of the circular and longitudinal muscular fibres of the intestine he says, "If we remember that the muscular colloid is made to contract by mechanical disturbance, and that among mechanical disturbance that which will most readily affect throughout its mass, is caused by stretching, we shall be considerably helped toward understanding how the contractile tissues are developed." This observation was made, undoubtedly after a careful investigation of all the facts. He asserts

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not only that stretching is the normal stimulus that produces peristalsis, but further that this stimulus tends to maintain healthy tone in the intestinal muscle. If it is true as Herbert Spencer and other biologists affirm, that the intestinal muscle has been evolved in this way, we can appreciate how fundamentally important proper regular distention of the bowel is to the maintenance of intestinal peristalsis, and how potent a therapeutic agent it is in cases of intestinal atony.

In 1903 I conducted several experiments bearing on peristalsis to demonstrate the effect of stretching the intestinal muscle. Dogs were anesthetized with chloroform and the abdominal viscera exposed by long longitudinal and transverse incisions. A collapsed thin rubber bag was then inserted through the rectum and made to rest in the colon. This bag was provided with a tube for the purpose of inflation. By these means any degree of distention of the rectum or colon can be obtained. The presence of the uninflated bag produced no contraction. Moderate distention was followed after a time, varying in different dogs and in different parts of the intestine, by waves of contraction. Usually the contraction began immediately above the bag, but occasionally it was first seen at some distance. However, the contractions always began above the bag. As the distention was increased, the peristaltic contractions began more promptly and wave after wave propelled the bag rapidly along. In most cases strong contractions of the abdominal muscles accompanied the peristalsis when it became vigorous. These experiments seem to demonstrate that distention of the bowel produces normal effective peristalsis. The rubber bag is smooth and devoid of any chemical characteristic which could be operative in the bowel. If then, it be accepted that intestinal peristalsis is normally induced by distention, or if this be true only of the

colon, it will be easy to understand the success that has attended the various mechanical measures that have been used in the treatment of certain intestinal diseases.

Another of the more recent discoveries of the physiology of intestinal peristalsis is that the contractions begin above the stimulus, while immediately below it, there is usually dilatation. Accordingly distention in the rectum or sigmoid produces peristalsis in the colon far above the stimulation. A third matter which is of no little importance in this connection is the length of time the distention continues in normal conditions. It has been demonstrated that peristalsis in the small intestine is much more rapid than it is in the large. In the colon the waves are comparatively slow and the fecal material rests much longer in one place. Under normal conditions material passes through the small intestine from the ileocecal valve to the pylorus, a distance of fifteen feet, in about four hours, whereas it requires about twenty hours to pass through the large bowel, a distance of only four or five feet. It will be seen, therefore, that distention must persist in the colon for a length of time in order to stimulate peristalsis. It would appear, therefore, that a momentary dilatation of a portion of the colon cannot be a very effectual agent either as a stimulus to peristalsis or as an agent for the restoration of muscular tone.

Another item of interest in the physiology of the colon is the part played by the nerve supply of the recto-sigmoidal region in the mechanism of peristalsis. When this portion of the colon is distended, the intestinal contractions become very vigorous, and there is usually consciousness of an inclination to strain. I noticed, in my experiments upon dogs, that distention at this point evoked not only peristalsis but contractions of the abdominal muscles as well.

A fourth question in the physiology of the intestine is the consistency of the natural stimuli. In the stomach and small intestine the contents are usually fluid or semifluid, while in the large intestine they are nearly solid.

The physiology that has a direct bearing upon the use of rectal tampons may be summarized as follows:

1. The normal stimuli of intestinal peristalsis is mechanical, viz: stretching.

2. Peristalsis begins above the object that forms the stimuli e.g., stimuli in the rectum produce waves of contraction in the whole colon.

3. In the large intestine the muscular fibres must be stretched for a length of time to induce peristalsis.

4. In the large bowel and rectum the natural stimulus is solid or semisolid.

5. The mechanism of peristalsis in the colon and the concomitant contractions of the abdominal muscles are especially dependent upon the natural distention of the rectosigmoidal region.

A consideration of these very obvious facts will make it apparent how very closely a rectal tampon can be made to operate like the normal bowel contents. However, the facts that encourage me to recommend this therapeutic agent are clinical rather than physiological. During the past three years I have used rectal tampons in a large number of cases of chronic constipation with most gratifying results. The only cases that did not yield to this treatment were those cases in which the intestinal atony was complicated by some predominating pathological condition. A tampon placed in the rectum above the rectal valves in cases of chronic constipation, and allowed to remain in this position for three or four hours, will usually be followed by a movement of the bowels within twenty-four hours, and in most instances another movement before the expiration of another twenty-four hours. The tampons I have used were composed

of cotton, lamb's wool or gauze. They are easily inserted through a proctoscope. They cause the patient no pain or inconvenience and he may leave the office with directions to withdraw the tampon in three or four hours. In the majority of cases I have found that a tampon used every second day for two weeks is sufficient to effect a cure. I first reported this method of treating chronic constipation in the *New York Medical Record*, December, 1905, and since that time a number of physicians have informed me that they have used rectal tampons in these cases with excellent results.

The tampon is solid and resembles sufficiently in consistency, the normal feces in the rectum or sigmoid. It does not cause any chemical irritation. And any degree of distention may be obtained by increasing the size of the tampon. The tampon may be retained for a length of time. In this respect it closely resembles the natural stimuli, and to it, I believe much of the therapeutic value is due. The passage of rectal sounds and other devices which cause stretching of the muscle fibres of the bowel, all tend to excite a certain amount of peristalsis, but the tampon not only stretches the bowel but keeps it stretched for several hours. This produces a series of waves of contraction of increasing intensity, and the tampon furnishes a resistance to these contractions which tends to augment the stimulation. After a few hours the patient begins to feel an inclination to go to stool, and when the tampon is withdrawn the fecal material is either expelled or is forced down to take the place of the tampon where it keeps up the stimulation resulting within twenty-four hours in a bowel movement. The rectal tampon therefore is not only a method of stimulating intestinal peristalsis, but is a reliable agent to improve the muscular tone of the bowel.

## Discussion

**Dr. Louis Hirschman**, Detroit, in opening the discussion, said the question of treating constipation without cathartics is receiving much attention. One should first of all make a correct diagnosis; distinguish constipation which is functional, from obstipation which is an obstruction to bowel movements. A thorough rectal examination to rule out such conditions as valves, strictures, pressure of tumors, etc., is necessary.

There are many factors producing constipation. The most important of these are neglect of nature's call and the character of the diet. One should determine if the patient is getting solid foods which will distend the gut and dilate the sphincter. The sphincter is surrounded by a plexus of nerves which requires daily stimulation to keep it in a normal condition.

The question is what should we do locally, if normal daily evacuation does not take place.

The method just described is a good one, but there is another mechanical means which has been found successful. It has the advantage of not requiring the time that it takes to use the tampon, and a proctoscope is not necessary. The apparatus consists of a rubber bag attached to the distal end of a Wales bougie. This is inserted into the rectum, and slowly inflated with air until the patient feels pain. It is then held for about 15 seconds, when the air is released. This manipulation is kept up for about five minutes and then the inflated bag is withdrawn with a massage mo-

tion. One can get the same results in 5 to 10 minutes that it takes several hours with the tampon. The improvement is evident after the first treatment. Ten to twelve daily treatments are all that are required for the average case.

This method is no better, but just as efficient as the one described.

**Dr. W. L. Dickenson**, Saginaw, has had no experience with tampons, but has used similar methods. In certain cases, he has connected a wales bougie with the vibrator, introduced it into the gut, using an oscillating motion for three or four minutes and followed this treatment with a short application of a large rectal vibrator. In this way, one can gradually dilate the sphincter with comparative ease. The result is satisfactory in most cases.

**Dr. J. A. MacMillan**, Detroit, closed with the following statement; Cathartics will not cure chronic atony of the bowel. The means must be a mechanical stretching of some kind. The special point is to simulate nature as near as possible.

The method described has been in use over three years and during this time there has been less than 10 per cent of failures. Usually the patients knew all about diet and the ordinary medicinal methods, so that the after treatment was not difficult.

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Involuntary urination very often means a distended bladder, and in old men it should at once indicate an examination into the condition of the prostate. Vomiting, too, is often caused by distention of the bladder.

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In the presence of anemia or of faintness, without other apparent cause, inquire concerning the passage of black stools. The condition may result from hemorrhages due to an ulcer or neoplasm of the small intestine.

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Children who complain frequently of pain in the stomach should be examined for evidence of beginning Pott's disease. Such cases treated before the development of curvature usually yield very satisfactory results.

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An amputation for malignant ulceration should not be performed until the possibility of its being merely a broken-down gumma has been satisfactorily excluded.

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Tinnitus aurium, present only in the recumbent posture, is suggestive of aneurism of one of the posterior cerebral vessels.

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After circumcision it is important to prevent adhesion of the reflected mucous fold of the prepuce to the corona glandis by the daily passage of a probe about the corona, and by the use of vaseline.

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Inflamed areas and abscesses about the knees of creeping infants should be examined for foreign bodies.



## GASTRO-INTESTINAL CONDITIONS IN PERNICIOUS ANEMIA\*

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HUGO A. FREUND, A.B., M.D.

First Assistant in Medicine, University of Michigan.

Ann Arbor.

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Addison, in his observations on pernicious anemia, early associated gastric symptoms with that disease. Since then, many observers have dwelt on the clinical importance of the gastro-intestinal findings. Biermer was one of the first to establish the fact that insufficient feeding, loss of appetite, weak digestion, sometimes gastric discomfort, and, very often, persistent diarrhea were to be considered as the most common features of this disease. "If slight, they are effects; if severe, they are causes." (Biermer.)

Gastro-intestinal symptoms may be divided into two classes: according to their time of onset, and according to their cause. Of the former class, there are cases that begin with complaints of bad taste in the mouth, loss of appetite, epigastric distress, periods of retching and vomiting, soreness in the abdomen, uncontrollable diarrhea, with either blood or mucus in the small and frequent stools, all of which may come on long before the signs of anemia become manifest. On the other hand, we meet with cases in which these symptoms develop along with the anemia, becoming more or less marked as the patient grows worse or better. Of the findings in such cases, I shall speak later.

In classifying the symptoms according to their cause, when that is possible, we meet with many contributing factors. Of great importance is the complaint of bad breath and bad taste, in other words, the sanitary condition of the mouth is

faulty. The interdental spaces, the margins of the gums, and the buccal surfaces are admirable harbors for any putrefactive or pyogenic organisms. Leave them undisturbed, and you soon have innumerable stagnating foci which take but a short time to make inroads upon the teeth and then the jaws, giving rise to caries, to necrosis and, finally to a chronic pyorrhea. What more is needed to disturb the alimentary functions? Is it a wonder that food becomes distasteful, that the breath is foul, that mastication becomes difficult and imperfect, or, finally, that the body has to cope with pernicious toxins, absorbed from the abscesses or from the necrotic material that the patient continually swallows? Into the stomach and intestinal tract, germs of any kind find their way. The gastric secretions become low, the organisms find excellent media for propagation, their toxins are absorbed, or what is more, they exercise a destructive action on the delicate mucosa, absorption of food is hindered, and, generally, vomiting, distress in the abdomen, flatulence, and diarrhea develop, along with signs of malnutrition, weakness, and anemia. There are cases where a patient, previously in excellent health, has a sudden, severe hemorrhage—epistaxis, gastric or intestinal ulcer, hemorrhoids, as the case may be. Instead of immediate recuperation, the secondary anemia that ensues, is intensified by slight additional hemorrhages. Frequently, hard labor, acute infections, worry or some other debilitating cause aggravates the condition. An anemia

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which ordinarily would yield to treatment in a short time, drags on indefinitely—months, and even years. Finally, the picture changes, and, what was formerly a simple anemia, with low blood index and well-shapen cells, gradually, but inevitably, develops into the pernicious type, with high blood index and mal-formed corpuscles.

Of intestinal conditions that must be considered as causing a progressive anemia, are the intestinal parasites. These are of many types, too numerous to permit of discussion. However, we may take the anemia such as is caused by the *Uncinaria Americana*, or hook worm, as an example. The report of Dr. Ashford and his assistants on the anemia of Porto Rico, covering nearly 5,000 cases, amply illustrates this point.

Another class of intestinal diseases which are found antecedent to pernicious anemia, are the diarrheas. I can do no better than cite an example of such a case:

The patient under discussion has been watched since the fall of 1904, when he came to the clinic of Prof. Dock, at the University Hospital, complaining of diarrhea and inability to digest his food. His stools, examined at that time, were as numerous as nine per day, and contained large quantities of mucus—often a pint at a time. The diarrhea yielded slowly to treatment. No parasites were found. When the enteritis was finally checked, the patient was much improved. Belching of gas, distress in the abdomen, and poor appetite persisted, despite rigorous treatment for these conditions. The patient, however, gained to such an extent as to be able to do light work. At that time, the patient was suffering from severe anemia, and, although the blood did not present the picture of a primary form, this type was strongly suspected. The patient was discharged, but returned in October, 1905, complaining this time of diarrhea, eructations, and of general discomfort. His legs showed some edema, for the first time, and his anemia was more marked. He had not lost much weight, although his strength had waned perceptibly. On examination, his condition was found to be much the same as before, except for the nervous symptoms

that had developed. The blood examination showed nothing definite, and, as treatment for the gastritis and the enteritis soon improved the patient's condition, it was faithfully pursued. In three months he returned to his home. March, 1906, found him with us again. Diarrhea in a very mild form and a few gastric symptoms remained, but it was now the general languor, fatigue, shortness of breath, and the swollen extremities that were foremost of the patient's complaints. His blood, too, was altered, not so much in the total number of cells, and the amount of hemoglobin, for his power of regeneration seemed good, as the shape and kinds of his cells, and the relative number of the white elements. Cord changes now seemed to be contributing to the panorama of symptoms, for his tendon reflexes have disappeared, and, lately, incontinence of urine and feces have developed.

I might cite other similar cases, less striking, perhaps, in their evolution, but exhibiting gastric and intestinal stigmata of this disorder. It will suffice, however, to state, briefly, that of 53 cases, 54% complained of loss of appetite; 38% of bad taste in the mouth, due largely to poor teeth; 46% of nausea and vomiting; 54% of epigastric distress; 24% of diarrhea, and 10% of constipation. It must not be understood, that these were the only symptoms, but in the great percentage of cases, they were the chief complaints for which the patients sought relief. In a very few cases, no such disturbances were described. In nearly every instance, general weakness and shortness of breath on exertion were complained of. In 32% of cases, numbness in extremities, with often times change in color, loss of weight or languor, formed a group of symptoms whose insidious onset and persistency brought these patients to our care. For the past few years, careful gastric analyses, and examination of feces, have been the routine in these cases, while treatment was being instituted. The results are striking in their uniformity, and of value in suggesting a plan for treatment.

Out of 35 cases, examined for free

hydrochloric acid, a small quantity was present in but one instance, after a single test meal, and absent in all others. Hydrochloric acid in combined form was rarely met with. Pepsin was tested for in 33 cases. Six gave slight evidence after a long period of time, but none of the remaining showed any degree of digestion. Chymosin was absent in every case examined. The excess of mucus found in the gastric contents was quite constant. Eighty per cent of the cases showed an excess, sometimes to such an extent as to suggest a mucous gastritis.

The microscopic examination usually reveals various kinds of bacteria. In addition red blood cells and leukocytes are frequently found, due, probably, to a diapedesis of these elements into the stomach. In a few instances, bits of mucous membrane have been withdrawn with the tube. They present, in each case, the picture of an atrophic gastritis, with some interstitial change.

One of the most interesting of these analyses is the motor power of the stomach. In observing 34 cases, but one showed signs of retention. In 9 of the

cases, the motility was normal. In the remaining 24, the motor power was increased, varying from cases with but slight hypermotility to stomachs that emptied themselves completely in 20 minutes.

Time forbids me to go into the indications for the treatment of these cases. I should have liked to have called your attention to the excellent results that can be obtained from treatment on a rational basis, carried out along lines suggested by the symptomatology. I am content at this time, however, to interest you in these few facts:

1. The uncleanness of the mouth and teeth in many of these cases.
2. The danger of persistence of gradually progressing gastritis, with periods of nausea, eructations, and vomiting.
3. The outcome of the various diarrheas that resist treatment.
4. The seriousness of repeated small hemorrhages, no matter from what source.
5. The value of gastric analyses, and the examination of intestinal contents.

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### DISCUSSION.

**Dr. C. D. Aaron**, Detroit, in opening the discussion, said that in pernicious anemia it is impossible to determine the chief etiological factor; for this reason, it is very important to know the state of the gastric secretions. Although these elements are usually diminished, Dr. Aaron said he had seen cases with an increase of acid and ferments. As a result of the extra work usually put upon the pancreatic digestion, there frequently is a complicating diarrhea. Under such circumstances it has been the custom to give dilute hydrochloric acid and pepsin. Usually it is better practice to start the pancreatic digestion in the stomach. At first this method did not succeed, because, as we now know, it is necessary for the pancreatic secretions to come in contact with the intestinal secretion to be made active. Some new preparations have recently been put upon the mar-

ket which give an activated pancreatin. A patient, a physician, on this preparation was considerably improved for a time but died about two weeks ago.

**Dr. George Dock**, Ann Arbor: One of the most important points in the care of a case of pernicious anemia is to make a thorough examination of the gastro-intestinal tract. It is necessary, however, to make an examination of all the organs.

Dr. Dock has observed that the best results come when the treatment is begun early. In regard to the point made by Dr. Aaron, he thinks it is still an unsettled question and will probably turn out about like the experience with pepsin a few years ago. Dr. Aaron's statement about the physician reminds Dr. Dock of what happened to



that same patient some two years ago. Reports were circulated that he had been cured by giving large doses of hydrochloric acid. Dr. Dock predicted relapse at the time. He hoped that experience with intestinal products mentioned by Dr. Aaron, would prove more valuable but thought it very doubtful.

Dr. Hugo A. Freund, Ann Arbor, stated in conclusion that in none of the 56 cases studied was there hyperchlorhydria or an increase of the digestive ferments. One point he wished to emphasize is that we should not attempt to work for specific cures, but try to determine the causative factors.

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## THE SIGNIFICANCE OF THE TERM "ITCH" IN SOME OF THE MORE COMMON PRURIGINOUS AFFECTIONS OF THE SKIN\*

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ANDREW P. BIDDLE, M. D.  
Detroit

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In accordance with the suggestion of Dr. W. L. Bower, secretary of the Montcalm County Medical Society, to whom I am indebted for the courteous invitation to appear before you, I am presenting for your consideration a few of the more common diseases of the skin in which the sense of itching plays an important role. So much confusion exists as to the weight to be attached to the sense of itching in the recognition of the true character of a dermatologic lesion, and both the profession and the laity have so popularized the term "itch," that your worthy secretary thinks it may be of interest to you if I briefly analyze and differentiate these various pruriginous affections.

To make the analysis more clear it will be well to divide this group into

- 1st—Verminous parasitic diseases—
- 2d—Vegetable parasitic diseases—
- 3d—Bacterial parasitic diseases—
- 4th—Secondary bacterial infections—
- 5th—Pruriginous papular dermatoses—
- 6th—Pruriginous sensory neuroses—

Itching is common to most animals,

most marked in the hairy and feathered, at times being apparently spontaneous and physiologic. It seems to be allied to the sense of tickling, pricking, creeping, crawling, and to convey a suggestion of something extraneous to the body, as if provoked by an external irritant.

It would seem that the sensation must have to do with the free nerve terminals in the epidermis, as evidenced by the fact that itching occurs only when the epidermis is involved in the pathologic process. Deep seated affections do not itch, only those the lesions of which are superficial; and diseases of the connective tissue do not itch, even though superficially located. But we have all witnessed the intolerable itching of scabies, of pediculosis, of lichen planus, and the scratched skin of some of the stages of eczema, in which the itching has been so intense that the nail has denuded the skin to the retemucosum, has torn asunder the follicular prominences and the skin consists of a mass of excoriated, denuded, infiltrated tissue with secondary pustular formations, enlarged neighboring lymphatic glands, and, where the itching and the inflamma-

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\*Delivered by invitation before the 11th Councilor District Meeting, at Greenville, October 26, 1906.

tion have been of long standing, is thickened and pigmented.

Often the itching is a reflex phenomenon from an internal organ or from a mechanical or chemical irritant, as the ingestion of certain foods and medicines, weather changes, exposure to cold or heat, the application of certain drugs and plants, the change of clothing. It is often the accompaniment of jaundice, of dyspepsia, of the gouty state, of albuminuria and chronic Bright's disease, of lithemia and rheumatism, of diabetes mellitus, of fermentative processes of the bowels, of ovarian and uterine diseases, of pelvic tumors and of pregnancy, and may often be due to a central disease and may accompany anxiety, mental troubles and depressing mental influences.

Thus we see that disturbance, through the sense of itching, is common to many diseases, but in the affections under consideration it plays so important a role as to affix the term to the disease, irrespective of the true condition.

To the first group would belong the *Human Itch*,—Scabies—a dermatozosis caused by a sarcoptes, the *Acarus Scabiei*. The irritation is due to the presence in the skin of the female parasite, which has burrowed into its folds for the double purpose of nutrition and the laying of her eggs. Contamination usually takes place during nocturnal contact and this mode of infection is accepted today as more probable than by contact in handshaking. As it is more liable to occur among those who segregate and as foreigners, coming into this country, are apt to live together in close quarters, it often goes by the name of the *Italian, Hungarian or Polish Itch*. Among the poor in European countries, in Norway, scant attention is often paid to cleanliness;—the disease becomes very chronic, scales, crusts and other debris are permitted to accumulate. The retention of this mass of debris leads to almost uncontrollable itching and the dis-

ease goes by the name of the "*Norwegian Itch*," the seven-year itch.

Again, when large bodies of men live together for any length of time, as in a military camp, the affection is apt to become rampant and the boys will attach the name of the country in which they are sojourning to the disease and thus we hear of the *Texan itch*, the *Mexican itch*, the *Cuban itch* and even, in lumber camps, of the *Michigan itch*.

The *Cuban itch* might easily be disposed of, by stating that there is no such disease *per se*, were it not a word made so prominent by recent history and so easily conveyed as to become popularized and that it will be used for years after by the laity and indeed often by members of the profession to cloak their ignorance or to satisfy their patients. Thus we hear of the Cuban itch eight years after the Spanish-American War.

In this country, except in large cities where the poor are bundled together in unhygienic surroundings, and except among the old and miserable, the broken down and cachectic, or among large bodies of men encamped together—phthiriasis of the body is not common. But in severe cases it presents a picture not easily forgotten. The lesions are due to irritation produced by the body louse (known to the boys as the "gray back"), which inhabits the clothing, not the body, but feeds upon the body, especially upon the back. Even in the recent case the long striated, parallel lesions along the back produced by scratching are so characteristic as to be pathognomonic and when the louse and eggs are found in the seams of the clothing, the diagnosis is clear. And when severe the skin becomes thickened and discolored, especially on the back between the shoulders, on the hips and over the hypogastric region and the clothes exhale a musty odor. The itching is more intense than in scabies.

The *Dhobie itch*, imported from the Philippines by returning soldiers, is a

vegetable or bacterial parasitic infection, occurring among those forced to march and to live in marshy and damp grounds. These men show upon the lower extremities a brownish coppery-colored pigment not unlike an old syphilitic lesion, which may be due to secondary bacterial infection. Many of these cases have I observed among soldiers, who have seen service in the Island possessions, when applying for re-enlistment into the United States Army.

What is known to dermatologists as *barber's itch*—*tinea sycosis vel trichophytinae barbae*—is a rare affection in this part of the country. At St. Mary's Hospital Free Dispensary only three cases have presented themselves to the department of diseases of the skin in 15 years, and two of these were in brothers. It is due to fungi, the microsporon audouini and the trichophyton megalosporon and is characterized by two distinct types, one of which remains superficial, and the other of which is of a deep-seated nodular form, the latter being generally acquired from contact with a domestic animal suffering from the disease.

What is called by many members of the profession and is known to the laity as *barber's itch* is of very common occurrence, a bacterial infection, impetigo contagiosa, due to pus-cocci, the staphylococcus aureus, streptococcus and possibly the staphylococcus albus. It is an acute, contagious, inflammatory disease of the skin, noted for the superficiality of the lesion, which is usually discrete, flattened, at first serous, then sero-purulent, dying into thin yellowish crusts, found upon the face of man or woman. It is not infrequently in the case of the man, contracted during a shave in a public place—hence the name. It is the same disease which is so common among children, upon whom it may be found upon almost any part of the body.

*Baker's itch*, tradesman's, grocer's, washerwoman's, bricklayer's, paster's, bookbinder's, printer's, dyer's, chemist's *itch* are chronic, indurated, pruriginous patches of eczema with a tendency to fissures, found upon the palms of the hands and aggravated by, if not due to, the exposures of the hands, as the case may be, to the flour and yeast, to soap-suds and water, to mortar, or to the ingredients incident to the other occupations.

*Lumberman's, prairie or swamp itch* may be indurated pruriginous patches of eczema found upon persons, especially on the lower extremities, who work in the woods, in the prairie or the swamps, due to dampness and the retention of wet clothing and aggravated by repeated scratching, or may be unrecognized cases of scabies, or cases of autumn or winter itch.

With the beginning of cool weather, in October or November, there comes to not a few an itching of the lower extremities, the inner surface of the thigh and the anterior and lateral surfaces of the leg below the knee. It is not constant, but is usually more aggravated as one disrobes for the night. It goes by the name of *autumn or winter itch, frost itch* (*Pruritus Hiemalis*), and is apt to continue until the warmer weather of early spring, to recur the following fall with unvarying regularity.

The *Ohio scratches*, the *Texan mange*, as found in the western and northwestern states are usually examples of this frost itch.

The itching prevalent among those who work among poultry, the *fowl's itch*, the itching accompanying the bites of mosquitoes, fleas, bedbugs, has an urticarial element which accounts for its severe character.

In the higher walks of life many persons bathe so frequently, once or twice a day, as to rob the skin of its natural oiliness. As the result, they complain of an irritable skin, which scratching



soon puts into an eczematous state, known as *bath itch*. A naturally dry, irritable skin predisposes to the affection.

Many of these parasitic affections become secondarily infected and so we find in scabies, in the impetiginous affections, secondary infection by the staphylococcus. Thus many of the pustular dermatoses are confounded and it is not uncommon to find the term "itch" applied to the pustular type of acne of the back, the pustular stage of syphilis (especially of the back), the secondary infection of an impetigo or an eczema or the pustular lesion of smallpox. However, the chronic condition of an acne, with the accompanying comedones and scars; the history of other classical lesions of syphilis; the superficiality of the lesion of im-

petigo with its thin crustation; the usual commingling with other types of eczema and lichenization; and the segregation, acuteness of the lesions of smallpox with a history of fever and prior lesions and backache should make these mistakes under ordinary circumstances impossible.

After 50 years of age many persons suffer with another type known as *senile itch*. It is usually generally and evenly distributed, the itching is continuous and at times intense. It may be due to an inordinate dryness of the skin following the atrophy of the sebaceous and sweat glands, or to defective elimination from kidney and other degenerations. As a rule it is accompanied by high arterial tension.

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## TRAUMATIC LESIONS OF THE EYE WITH SPECIAL REFERENCE TO THEIR EFFECT ON THE CORNEA\*

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H. R. CONKLIN, M. D.  
Tecumseh

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It is not my purpose to mention all of the pathologic conditions which result from external violence to the eye, but I wish to draw special attention to some common injuries which the general practitioner meets in everyday practice and particularly to those injuries which directly or indirectly involve the cornea. The constantly increasing use of mechanical appliances and the means of rapid transit now in common use make these injuries more frequent, while at the same time acute vision was never so greatly valued as at the present.

Were it not for the fact that nature has so abundantly provided for the protection of the eyeball by surrounding it with strong, bony walls and supplying

it with a protective nervous mechanism which requires only the slightest external irritation to put into action, eye injuries would be still more frequent and more destructive. Slight injuries, which in other parts of the body would be insignificant, will quickly destroy the usefulness of the eye. The latter is composed of highly specialized tissues which are extremely sensitive to any form of irritation and are quickly destroyed by inflammatory action. When once destroyed, these tissues are not replaced in kind, but are substituted by connective tissue possessing two qualities that are highly objectionable. In the first place, it contracts and in so doing it may so distort the eyeball that the latter becomes partially or wholly useless; and, in the second place, it is opaque, and,

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\*Read before the Lenawee County Medical Society, October 9, 1906.

therefore, if it substitutes tissues occupying the line of vision, it causes permanent damage by obstructing the rays of light. This being the case, the first thought in the treatment of eye injuries should be to prevent, so far as possible, all inflammation which may result in serious destruction of tissue, and in order to do this we must consider all injuries, no matter how trivial, as dangerous and worthy of prompt and careful attention.

Just here I wish to emphasize the importance of a careful examination of the injured eye. In many cases the swelling is so great or photophobia is so extreme that a good view of the eye is difficult to obtain, but by patience and care, it is possible to gently separate the lids and in a few seconds the orbicularis muscle relaxes, the upturned cornea descends and the examination can be made, whereas by forcing the lids open rapidly, the spasm increases and examination is difficult, if not impossible. A small incandescent diagnostic lamp or a convex lens for focusing the light on a small area, assists greatly in making the examination.

Eye lesions may vary in severity from trifling abrasions of the conjunctiva to complete destruction of the orbital contents. It is customary to classify such lesions as penetrating and non-penetrating.

Penetrating injuries, as a rule, fall into the hands of the specialist, especially if the penetrating body is retained within the globe, but such injuries are seen first by the family physician, who usually makes the first dressing. This consists in a general way of cleansing with normal salt solution or some mild antiseptic wash, followed by the application of cold compresses for 24 to 48 hours, until the necessary operative work can be done. In many cases this treatment, accompanied by the instillation of a solution of atropin sulphate, is all that

is necessary, providing, however, that the foreign body is not retained.

The larger number of the cases which we see are non-penetrating injuries, and while there is not as much danger of intraocular sepsis, the condition, so far as danger to vision is concerned, may be just as serious as in penetrating injuries. The cornea may be destroyed by the action of caustics or by a drop of molten metal, or it may be lacerated by a piece of sharpened stick or some other foreign body. The resulting scar effectually destroys the sight; or if the injury be to the tissues adjacent to the cornea, the contracting scar, by pulling the corneal tissue, so changes the shape of the cornea that the image received through it on the retina is blurred.

Next to the actual destruction of tissue at the time of injury the most potent agency in producing these results is septic infection. We very often see eyes in which the original injury has been insignificant, perhaps nothing more than a piece of emery lodged in the cornea. There may have been a few days' delay in removing the foreign body, septic infection supervenes and the injury then has the appearance of a superficial defect with edges of a yellow color and surrounded by a pearly white zone of infiltrated cornea. The ulceration thus begun may terminate in a few days as the result of the phagocytic action of the white blood corpuscles, but in weak, poorly nourished people who have little resistance to infection, it may last for weeks with little or no tendency to spontaneous healing. In such cases the ulceration gradually extends over the surface and increases in depth. Finally pus appears in the anterior chamber, either as the result of perforation of the cornea or from the migration of the pus cells through the corneal tissue into the anterior chamber at the iris angle. Should perforation occur, the aqueous humor escapes and the iris may become ad-

herent to the posterior wall of the cornea.

The prognosis of these injuries to the cornea depends upon their location and the amount of tissue destroyed. A small injury immediately over the pupil causes more serious results than larger injuries at some other point. Even if the wound heals without leaving opacities, the contour of the healed surface may be uneven and the vision lowered on that account. Where opposing surfaces of the conjunctiva are denuded, as frequently happens as the result of burns or the effect of chemicals, there is danger of adhesions, but these may usually be prevented by frequently drawing the lid away from the cornea or by the interposition of some smooth, flat object between the lid and eyeball. Such treatment is not effectual if the retrotarsal fold is included in the injury.

The treatment of these injuries of the eye varies with the location and extent of the injury. Small incised or lacerated wounds of the cornea are best treated by washing with boric acid solution or some other mild antiseptic wash and then bandaging to keep the eye at rest. If the conjunctival irritation is excessive, gauze pads may be laid upon a cake of ice and transferred to the eye sufficiently often to keep the lids cold.

In large, gaping wounds of the cornea, if the pressure bandage is inefficient, it may be necessary to use fine silk sutures to approximate the edges. If the iris is prolapsed it must be replaced or if that is impossible it may be necessary to excise the part which protrudes from the wound. If the wound is near the limbus, eserine in the strength of  $\frac{1}{2}$  grain to the ounce should be used to contract the pupil and draw the iris away from the wound; or if central, atropine (4 gr. to 1 oz.) should be used.

After removing foreign bodies from the cornea, the eye should be washed thoroughly with a mild antiseptic solution and atropine instilled until the cor-

neal wound is healed. Should infection occur, the eye should be thoroughly cocaineized and the ulcer curetted while being sprayed with a dilute solution of boric acid. After curetting it may be touched with the tincture of iodine or a solution of silver nitrate (gr. 20 to 1 oz.).

Fox, of Philadelphia, advises the use of a 20 per cent solution of trichloroacetic acid in infected wounds of the cornea, or in the anterior chamber. When the pus is present in large quantity it is necessary to evacuate it. The application of hot normal salt solution in the form of compresses for five or ten minutes every three or four hours, relieves the pain and improves the circulation through the eye, or the anterior part of the eye may be immersed in a cupful of hot saline solution. Cold applications should not be used when the cornea becomes steamy and shows deficient vitality or in very old or feeble persons. As I have said before, they are most useful during the first 24 to 48 hours after an injury.

Dionin is a remedy which has a marked influence in improving the circulation and assisting to clear up corneal opacities during the convalescence of the eye from an injury. Chemically it is the hydrochlorid of ethyl morphine. It is usually used in 3 to 5 per cent solution for one or two minutes. After its instillation the conjunctiva becomes intensely swollen, but the reaction, though severe, is harmless. I have recently used it with good results in treating senile ulceration of the cornea which had resisted all other forms of treatment.

In conclusion I wish to mention the fact that it is necessary to give careful attention to the general condition of the patient in all serious injuries of the eye. Tonics and nutritious diet with good elimination do much towards hastening the recovery.



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FEBRUARY

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### Editorial.

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Interesting work for our medical societies for the present year has been proposed by the Program Committee of the Wayne County Medical Society. The committee, in its prospectus, suggests that an evening, now and then, be devoted to papers along historic and biographic lines. We hope that this will be carried out, for we believe that no more stimulating or inspiring papers can be given than those which detail in an interesting way, the historic side of epoch-making discoveries, or the achievements of those masters of medicine who have laid the foundation of our work.

One often hears the statement, when a member is asked to read a paper, "Oh! I have nothing to write about." True it is that the younger men in the society, particularly those who have been in practice but a few years, have little in their personal experience which will profit the society, but there is always open to them the large field of medical history and biography, especially of American history and biography. The compilation of such papers, it is true, requires much time, but if the writer is willing to put his energies into the task, the facts are readily ascertained. Papers along these lines might well be written by the younger men who have no large clinical experience to draw upon, and who have the time for the necessary research.

American medicine has had too few his-

torians and American physicians too few biographers. We are so fond of looking to England, to Germany and to France for our inspirations, that we often fail to realize how great have been the contributions to medicine, and particularly to surgery, by our fellow countrymen. Many pleasant hours may be spent with the files of some of the older medical journals, such as the *Boston Medical and Surgical Journal* or the *American Journal of the Medical Sciences*. In them will be found many papers dealing with subjects now well worked out, written when the ideas were new and the values but little understood. There are, for example, no more interesting historic subjects than the polemics which were waged, over ether and chloroform anesthesia, over the infectiousness of puerperal fever, or going back still further, over the value of vaccination. We all know, of course, the present status of such subjects. Few know many of the interesting questions and arguments, brought up when these themes were new. By looking over the files of a good journal, provided it be old enough, one can trace out the gradual changes of view which took place, and in this way not only gain interesting historic facts, but also get many side lights on present knowledge. If the results of such researches, together with the biographies of the men who fought these battles, were put into short papers, dull indeed would be the member of the society who would not be entertained and interested by them.

Another phase of the topic. There are in every community, city and rural, physicians who have served long and nobly in the practice of medicine. They are the Nestors of the profession. We should delight to honor them while still living, as, for example, was done by the Calhoun County Society when it gave its annual dinner in honor of Doctor French. As they pass away, these "doctors of the old school," the lessons to be derived from a review of their lives and generation

should be brought before the County Society. No one who heard or who has read Dr. Connor's delightful "Dr. Stewart and His Times," has failed to profit by it. We are often too slow in showing our appreciation of such men, for the combined stories of their lives go to make up the history of American Medicine.



**The loss of the Index Medicus** would be a serious blow to the vast number of medical men, who have occasion to search the literature. But the Carnegie Institute of Washington has not had sufficient support for the Index, and has sent out a notice containing in part the following:

"Unless it appears that the Index Medicus is of greater service to the medical profession and can help to support itself to a greater extent than in the past, it may become advisable to discontinue its publication."

It is quite possible that many physicians have never seen the publication and are unaware of its value. It is a monthly publication, giving an index of the titles and authors of all medical articles, published throughout the world, during the month preceding its issue. The titles are classified, and there is a table of contents in each number, so that it is possible to see at a glance what has been written on any given subject. The present publication is the result of years of systematic effort, and represents the closest possible approach to absolute accuracy and completeness. Any physician who desires to study a subject, as it is presented in current literature, can ascertain what has been written on that subject in any given time, and can select such articles as are accessible to him for perusal. It is indispensable to one who has ever used it, and those who have not, should learn its value and have it within reach. There should be at least one copy of the *Index Medicus* in every community that

harbors a group of intelligent progressive physicians. Every County Society might provide it for its members, the secretary to have charge of it and keep the volumes bound and accounted for. The discontinuance of the index would seem to us such a deprivation, that we earnestly request the support of the whole profession, to make its publication possible for all time. Communications can be sent to the Index Medicus, Carnegie Institute, Washington, D. C. Subscription price is \$5.00 per annum.



**State Registration of Nurses.**—There is at present a general movement in the field of nursing, toward state registration. Michigan is unfortunately behind her sister states, as already North Carolina, New Jersey, New York, Virginia, Maryland, Indiana, Colorado and Connecticut have secured legislation, twenty-five states in all having organized for state registration.

It is expected, however, to bring before the house at the coming session, a bill relating to professional nursing, requiring the registration of all trained nurses, providing a Board of Registration and Examination, fixing the number and duties of foresaid board, providing for the registration of nurses, and providing penalties for violation of the act.

It is important that registration of nurses be secured for Michigan. It will be a protection to the graduate nurses, to the public especially, and in no small degree to the physician.

It will in no way interfere with the practice or employment of nurses who have proven their worth, but it will furnish a protection against the spurious nurse and prevent the sailing under false colors of women whose experience in nursing is often only that gained while serving as maids in hospitals or possibly as probationers.

Only those who have graduated from

training schools maintaining certain standards, will be allowed to register and thereafter they will be known as registered nurses and entitled to the use of the letters R. N., to indicate such attainment.

The object of such legislation is to secure to the public, the means of knowing whom they may employ with safety to nurse their sick.

It is a movement well worthy the co-operation of our own profession, and we hope it will meet with every furtherance toward its achievement.



The annual meeting will be held in Saginaw on Wednesday and Thursday, the fifteenth and sixteenth of May. It will be remembered that the House of Delegates, at the Jackson meeting, voted to abolish the three-day session and return to the two-day meeting. The council, however, will meet in the afternoon of Tuesday, May 14th, and the House of Delegates in the evening of the same day.

The Saginaw County Society is already at work and committees have been selected to look after the many details in connection with the meeting. We are allowed to say, confidentially, that the entertainment will be most liberal, although of this no one acquainted with the hospitality of Saginaw, can have any doubts. The meetings will all be held under one roof, an arrangement which always contributes not a little to the comfort and sociability of the annual session. The railroad facilities for reaching Saginaw are excellent and her hotel accommodations are ample.

An attempt will be made this year to eliminate one factor which has detracted in the past from the enjoyment of the section work, i.e., papers of excessive length. Three sessions of each section will be held as previously, but the number of papers for each session will be limited, and the fifteen minute rule will be strict-

ly enforced. Each of the section chairmen has pledged himself to carry out this rule without favor. Members, in preparing papers, should bear this in mind. For publication in the Journal, a paper of any reasonable length is acceptable, but long indeed is the topic, the salient points of which cannot be given within fifteen minutes. Authors of papers should also remember that their audience will be much more attentive, if diagrams and charts are freely used. Important points can often be illustrated, it matters not how crudely—and many lines of text thus saved. Titles should be sent to the respective secretaries not later than March 20th.

Let each one plan to lay aside his work for two days in the spring time and attend the Saginaw meeting.

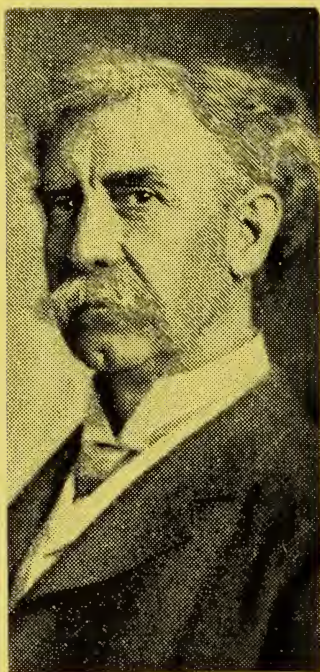


**A grave defect in the labelling of drugs** appears to be involved in an alleged mandate from the Federal Department of Agriculture, which requires that packages of pills, tablets, cachets, etc., containing ingredients whose quantity must be stated under the new law, shall be labelled in grains per ounce. It does not require that the number of pills or tablets per ounce shall be stated. Hence it will be impossible to tell what the dosage of each pill may be. If a physician has to depend solely on such a label, it is worthless to him. It would be interesting to know why such a measure has been adopted, and if there are good reasons they should be advanced. To the casual observer, however, there seems no good argument in favor of labelling in grains per ounce, and excellent argument against it, appreciable alike by manufacturer, druggist, and physician. It is to be hoped that Doctor Wiley will perceive the tenor of feeling regarding this matter and remedy it before the evil is accomplished.





CAT.



Dr. William J. Herdman

**Dr. William James Herdman.**

Dr. William James Herdman, Ph. B., M. D., L.L. D., was born at Concord, Ohio, September 7th, 1848. His early education was received at Westminster College, Penn., and from that school he went to the University of Michigan, where he graduated from the literary department with the degree of Ph. B., in 1872.

During his university course he became interested in scientific work, particularly in geology and astronomy, and spent his vacations in geological surveys in the West. At the time of his graduation it was his intention to devote himself entirely to geological work, but meeting with an accident which necessitated a surgical operation, he became interested in his own case to the extent that his attention was given to medicine. And upon regaining his health he matriculated in the medical department of the University of Michigan, from which he had received his literary degree a year previous. Prof. H. B. Hutchins, Dean of the Law School of the University, who was, perhaps, his closest friend, writes me that young Herdman was an earnest, systematic student, thorough and conscientious in his work. While taking his course in the literary department, he did not confine himself to the curriculum, but branched off into more general scientific study. The writer knows that his learning in mathematics and in astronomy was broad, and that he conducted an *Astronomical Journal* during the absence of its editor (Prof. Harrington) from the University.

Doctor Herdman entered the medical department in 1872-73 and during his medical course taught anatomy in the office of assistant and later demonstrator of anatomy. He was in charge of this department during the period of change from the old custom of procuring dissecting material in any way, to the new law as it exists to-day. And indeed to

his energy and foresight the wealth of anatomical material which the medical student enjoys to-day, is largely due. The profession of the state is greatly his debtor for the industry and good judgment he exhibited in contributing to the efficiency of this enactment.

The degree of Doctor of Medicine was granted young Herdman in 1875 and he has been a member of the Faculty of the University and an earnest practitioner in Ann Arbor since his graduation. In years of practice in general medicine and surgery, he laid a broad foundation for the practice of his specialty of diseases of the mind and nervous system, to which he gave exclusive attention during the last ten years of his life. He has been promoted from time to time, from the Demonstratorship of Anatomy to the Chair of Diseases of the Mind and Nervous System and Electro-Therapeutics, which he held at the time of his death. He has long been considered an expert in psychiatry, and the courts of the state have frequently taken advantage of his knowledge in this direction. During the most active period of his educational work in the university, seeing the need of clinical material for his students close at hand, he drafted a bill which he presented to the legislature, the outcome of which was the erection and equipment of a "Psychopathic Ward" near the hospital of the university, which stands today as a monument to his clear foresight of the needs of medical students, and his tireless energy and industry in the bettering of humanity.

After securing this handsome building for the medical department, over which his colleagues should have given him control, he modestly turned it over to the medical faculty, leaving them the choice of a superintendent and pathologist, so that today the youngest and least experienced of that body, has equal control with the master mind which con-



ceived the institution and carried its erection to a successful issue.

Doctor Herdman was keenly alive to the claims of the less fortunate. His charities were large for a man of his means, and he was at all times ready to give largely of his time and money. If he was severe in his judgment, he was just. It was only necessary to convince him of the need of an individual in order to secure his help. He had tremendous energy and masterly self control, and in these characteristics rested his strength, for he was a strong man in many ways. Whatever interested the medical profession of his state equally interested him. He has been for years one of the most active members of the State Medical Society, and was, at the time of his death, one of its councilors. In the affairs of the American Medical Association he took an active part, and has served as presiding officer of his section. His contributions to medical science are numerous and have shown unusual ability and broad grasp of the subject in hand.

The regents of the university granted Doctor Herdman leave of absence for one year, beginning July 1st. It was commonly thought that he would spend most of his time in Europe, and he had arranged with Dr. David Inglis, of Detroit, to carry on a part of his work at the university during the current year. He knew that he was not well, and early in November visited his friend, Dr. Howard Kelly, of Baltimore. Dr. Kelly found an operation for obstruction of the colon necessary, which he performed, but Doctor Herdman could not recover, and died about five weeks from the time of the operation.

Doctor Herdman was a man of strong religious convictions. He was a Presbyterian, and was connected with the movements adopted by that sect for the uplifting of the religious life of the community. He was largely instrumental

in securing for the Presbyterian students at the university, the McMillan Hall, with reading rooms, library, gymnasium, etc. He was an officer of and contributed liberally to the Student's Christian Association of Ann Arbor. Every effort for the betterment of mankind appealed to him strongly. He has served his profession and his state well; he has given the best of his life to his university, and his ultimate history is that of a good man.

FLEMMING CARROW.

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**Recent Appointments.** Dr. George Dock has been appointed councilor of the first district, to act until the meeting of the house of delegates at Saginaw. Dr. C. G. Parnall, of Jackson, has been chosen by President Stockwell as secretary of the section on gynecology and obstetrics, as Dr. W. H. Morley will be absent in Europe during the late winter and spring. Dr. Carl S. Oakman, of Detroit, has been appointed associate editor of the Journal.

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## Book Notices

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**Peterson's Obstetrics.**—The Practice of Obstetrics. By Eminent Authorities. Edited by Reuben Peterson, A. B., M. D., Professor of Obstetrics and Diseases of Women in the University of Michigan, Department of Medicine and Surgery, Ann Arbor, Mich. Large octavo, about 1087 pages, with 523 engravings and 30 full-page plates in colors and monochrome. Cloth, \$6.00, net; leather, \$7.00, net; half morocco, \$8.00, net. Lea Brothers & Co., Philadelphia and New York, 1907.

The "Practitioners' Library" comprises three works on correlated subjects—pediatrics, gynecology and now the valuable volume on obstetrics edited by Peterson.

The present volume is of especial interest to the profession of Michigan for its editor and four of the ten contributors are members of the State Society.

The book is a handsome octavo of over 1,000 pages. The binding is most attractive and the printing and the paper all that can be desired.

In glancing it through, one is at once struck by the general excellence of the illustrations. The editor has made good use of the abundant material at his command, and many of the illustrations, as for example, those showing the various steps in the application of forceps, are from photographs made at the University Hospital.

As to the contents: Lack of space prevents as thorough and detailed a review as we would like to give. The first section is on the Physiology and the Development of the Ovum and is from the pen of Huber of Ann Arbor. The subjects are treated fully and yet concisely. We know of no more readable or more clear exposition of embryology than this. The illustrations, from original reproductions, are especially to be commended.

Manton of Detroit, contributes the second section covering the physiology of pregnancy, the diagnosis, the differential diagnosis, the duration, the calculation, etc., and the hygiene of pregnancy. He has done his work well, for the text is clear and explicit as well as complete. These chapters are especially well illustrated.

The third section, on the physiology of labor, is by Dorland of Philadelphia and the fourth on the physiology of the puerperium by Lewis and Bacon, of Chicago. Ehrenfest of St. Louis, and Warthin of Ann Arbor, cover the pathology of pregnancy. Warthin's chapters are among the best in the book, and present the various topics—which next to embryology, are the most difficult to write—in a most satisfactory manner. The section on Extra Uterine Pregnancy is by Schenck, of Detroit.

The Pathology of Labor is by Moran of Washington, and the Pathology of the Puerperium by Lewis and Bacon. Crockett, of Buffalo, has given some good chapters on obstetric operations. The final section by Lewis is on the New Born Infant.

We miss chapters from the editor. The whole work, however, shows his very careful oversight, for it is so uniform throughout that no one can make the criticism so often made on a book prepared by various authors, i. e., that the space and importance of articles are out of proportion one to another.

The index is good, an important point.

In reviewing, last month, a new edition of Hirst's *Obstetrics*, we said that it was one of the two American books on the subject. There are now three, for this latest contribution suf-

fers not a whit by comparison with any other work in English along the same line.

THE JOURNAL extends congratulations to the editor and highly recommends the book to its readers.

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**Grayson's Laryngology.**—The Diseases of the Nose, Throat and Ear. By Charles F. Grayson, M. D., Clinical Professor of Laryngology, Medical Department, University of Pennsylvania. New (2d) edition, revised and enlarged. Octavo, about 550 pages, with 152 engravings and 15 plates in black and colors. Cloth, \$4.00, net. Lea Brothers & Co., Philadelphia and New York, 1906.

The second edition of this work, revised and enlarged, has just been published, four years after its initial appearance. Thirty illustrations, including seven colored plates, have been added, and, although the titles of the chapters remain the same, the text has in many instances been simplified and practically rewritten, notably that on diseases of the accessory sinuses, which in the first edition was only touched upon. The author has endeavored to make the sections on the treatment and the technic of its application, a distinguishing feature of the work. On account of the necessarily large field covered, which includes the more common diseases of the nose, ear and throat, this plan has rendered the space devoted to anatomy and pathology exceedingly meagre, and therefore the work as a text book is of limited value to the beginner who wishes to specialize in oto-laryngology.

For the general practitioner, however, who treats the clinical conditions arising in his practice, the work clearly presents the procedures the author considers best adapted to the different conditions, with slight modifications for exceptional cases. Whether he has succeeded in always presenting approved methods from the standpoint of the specialist, is a matter more or less of personal opinion, for example—in the radical operation for chronic suppuration of the antrum of Highmore, the nasal opening is made into the middle meatus, a procedure apparently carried out only by the author.

The Asch operation for deflected septum is still accorded preference.

In the treatment of acute suppurative otitis media, much stress is laid upon astringent treatment of the nasal orifice of the eustachian tube, to be followed by politzerization, the incision of the drum being performed only as a last resort.



Fortunately the general practitioner is rarely called upon to decide such cases, and therefore these methods can be safely left unchallenged. The assertion that after the removal of the anterior end of the middle turbinate, catheterization of the frontal sinus is in a considerable number of cases impossible, and in none untended by danger, is to say the least, surprising. That if left to itself, nature will drain an acute antral abscess, either externally upon the face or internally at some point within the buccal cavity, and that antral suppuration is attended by pain and tenderness on pressure, are statements contrary to general experience. Such assertions, selected at random, fail to show a careful attention to accuracy of detail necessary to make the work worthy of unqualified endorsement.

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**Diseases of the Digestive Tract**, being Volume III of Modern Clinical Medicine, an Authorized Translation from "Die Deutsche Klinik" under the general editorial supervision of Julius L. Salinger, M. D., edited by Frank Billings, M. D., Professor of Medicine in the University of Chicago, etc., with 45 illustrations; 825 pages. D. Appleton & Co., New York.

The first volume of this series was on Infectious Diseases, edited by J. C. Wilson, A. M., M. D., Philadelphia; the second volume, "Diseases of Metabolism and of the Blood, Animal Parasites and Toxicology," edited by Richard C. Cabot, M. D.

It is safe to say that this will be one of the most useful volumes of this very excellent series, for in no other domain of general medicine have there been more changes and greater progress than in the diseases of the digestive tract.

The American editor has found little to add to the work of the contributors, who include such well known authorities as Rosenheim, Fleiner, Leo, Strauss, Riegel, Ewald, Boas, Hirschfield, Oser, Minkowski, Stadelmann, Kraus, Neusser, Vierodt, Strasburger, Hoppe-Seyler and Nothnagel.

Two sections are particularly valuable, inasmuch as most text-books contain comparatively little regarding the subjects, namely, Diseases of the Pancreas by Prof. Oser, of Bonn, and the Macroscopic, Microscopic and Bacteriologic Examination of the Feces by Dr. Strasburger, also of Bonn.

All of the subjects are treated very fully and

yet very concisely. Dietaries supplement the sections on treatment.

The work is a valuable complement to the two which preceded it and is to be unreservedly recommended.

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**Obstetrics for Nurses.**—By Joseph B. DeLee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Second revised edition. 12mo of 510 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$2.50 net.

De Lee has made his second edition even more complete than the first; the result is that it is an excellent little book for the student, or indeed the practitioner. Even the practitioner who does much obstetrical work can learn from it many valuable points about the nursing of his patients. The author has had a long experience in teaching nurses and the book is largely an outgrowth of his lectures. The illustrations are original and for the most part clear and forceful.

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**Abdominal Operations.**—By G. A. Moynihan, M. S. (London), F. R. C. S., Senior Assistant Surgeon at Leeds General Infirmary, England. Second revised edition, greatly enlarged. Octavo of 815 pages, with 305 original illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$7.00, net; Half Morocco, \$8.00, net.

Moynihan's work is in no sense a text book. It is a monograph and a splendid one, giving in detail the author's experience in the field of abdominal surgery. Gynecologic affections are not considered. Moynihan is one of the ablest of the British surgeons and one who has recognized that much can be learned in America. References to the work of American surgeons are numerous. The technic described throughout the book is more in conformity with American than British ideals. How minutely it is described and pictured may be judged by the fact that there are illustrations of the right and the wrong way for a nurse to hold a basin.

The sections on stomach and intestinal surgery, comprising about two-thirds of the whole, are among the best. In intestinal anastomosis and in gastroenterostomy, the author uses no mechanical devices, except his well known forceps.

The work is finely illustrated, and the type, paper and binding are all that can be desired.



The book is not one for the undergraduate nor for the man interested in internal medicine, but no surgeon should fail to read and study it.

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**Retinoscopy.**—By James Thorington, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic. Fifth edition; 67 pages; 54 illustrations (10 colored). Price, \$1.00. Philadelphia, P. Blakeston's Son & Co., 1907.

The fifth edition of this little book is just out with a description of new instruments, new illustrations, and a revision of the text, to bring it thoroughly up to date. The illustrations are used to excellent advantage, enabling the eye to take in, at a glance, details which would require paragraphs of text. No more simple yet complete description of the art and science of Retinoscopy can be found, and the book is to be recommended as a practical treatise on this important branch of ophthalmology.

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#### Books Received.

Whitman's Orthopedic Surgery. Third Edition, revised and enlarged. Lea Brothers and Co., Philadelphia. (Review next month.)

Massey. Conservative Gynecology and Electro-Therapeutics. Fifth edition. F. A. Davis Co., Philadelphia.

Transactions of the New Hampshire Medical Society. Published by the Society, Concord, 1906.

Transactions of the Indiana State Medical Society. Published by the Society, Indianapolis, 1906.

Superstition in Medicine. By Prof. Dr. Hugo Magnus. Translated by Dr. J. L. Salinger. Funk and Wagnalls Company, New York, 1905. (Review next month.)

Pulmonary Tuberculosis. Its Modern and Specialized Treatment at the Henry Phipps Institute of Philadelphia. By Albert Philip Francine. J. B. Lippincott Company, Philadelphia, 1906. (Review next month.)

The Harvey Lectures of 1905 and 1906. J. B. Lippincott Company, Philadelphia, 1906. (Review next month.)

International Clinics, Vol. IV. Sixteenth Series, 1906. J. B. Lippincott Company, Philadelphia, 1906. (Review next month.)

Organic and Functional Nervous Diseases. By M. Allen Starr. Lea Brothers, Philadelphia, 1907. (Review next month.)

Woman. A Treatise on the Normal and Pathological Emotions of Feminine Love. By Bernard S. Talmey, M. D. The Stanley Press Corporation, New York.

A Pocket Text-Book of Diseases of Children. By George M. Tuttle. Lea Brothers and Company, Philadelphia. (Review next month.)

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## Reports

### MINUTES OF JANUARY MEETING OF COUNCIL, MICHIGAN STATE MEDICAL SOCIETY, 1907.

The January meeting of the Council of the Michigan State Medical Society was called to order by Chairman Burr at the Hotel Cadillac, Detroit, at 11 a. m., January 10, 1907.

Present: Councilors Burr, Bulson, Dock, Spencer, Small, Baker, Willson, Haughey, Dodge, President Stockwell, Secretary Schenck and Treasurer Moran, of the State Society.

The minutes of the last meeting were read and approved.

Chair suspended the regular order of business and spoke a few words of eloquent tribute to the memory of Dr. W. J. Herdman, the late Councilor of the First District, whose sad and sudden death was such a shock to his friends and colleagues. A number of the Councilors attended the funeral and at that time a committee consisting of Drs. Bulson, Small and McMullen was appointed to draw up resolutions upon his death.

Chair asked for report of committee.

Dr. Bulson, Chairman of Committee, read the following report:

*"Mr. Chairman and Gentlemen of the Council:—*

*"Your Committee, appointed to prepare resolutions upon the death of Dr. William James Herdman, begs leave to present the following:*

*"Whereas, The Council of the Michigan State Medical Society, as well as the medical profession of the State and Nation, has, in the death of Dr. William James Herdman, sustained the loss of one of its most illustrious members, and*

*Whereas, The intimate relation existing between him and this Board during the past year,*

which caused its members to love and respect him, not only as a man among men, but for his keen foresight, tactfulness, and excellent judgment in adjusting the complex questions that came before it, makes it fitting that we record our appreciation of him; therefore, be it

Resolved, That the wisdom, energy and splendor, which characterized him and made him a world-wide authority in his especial line of work, and which he used in furthering the interests of the profession, be held in grateful remembrance.

Resolved, That the death of our illustrious brother, thus cut down in the midst of an active and useful life, has made a vacancy that will be hard to fill in the Board of Councilors of the Michigan State Medical Society, the State and National bodies, and in the faculty of the University of Michigan, of which he has been an honored member for over thirty years; and be it

Resolved, That we mourn the loss of our brother and friend, and will ever regard his memory with the tenderest of affection; and be it further

Resolved, That we extend our most sincere sympathy to the members of the bereaved family in this hour of deepest affliction; and cause a copy of these resolutions to be sent to them, and be spread upon the record of proceedings of the Council.

Respectfully submitted,

"A. E. BULSON,  
"SIDNEY I. SMALL."

Dr. Bulson moved the adoption of the resolutions. Supported by Dr. Spencer and carried unanimously.

Fitting remarks of affection and appreciation of Dr. Herdman were made by all present.

Dr. George Dock, of Ann Arbor, was introduced to the Council as having been appointed by the President of the State Society to succeed Dr. Herdman as Councilor of the First District.

The usual order of business was here resumed and the report of the Secretary of the Council called for.

By Dr. Haughey, Secretary of the Council:

A letter was received from Dr. T. A. Felch stating that it would be almost impossible to attend this meeting of the Council.

Through an oversight at the Jackson meeting no Councilor was elected from the First District, and President Stockwell had sent official notice

of Dr. Herdman's reappointment to that position.

Also a letter was in the hands of the Secretary from President Stockwell appointing Dr. Geo. Dock, of Ann Arbor, to serve Dr. Herdman's unexpired term.

Several letters had been received from Councilors regretting their inability to attend Dr. Herdman's funeral.

By Dr. Willson: That the report of the Secretary be accepted and adopted. Supported by Dr. Baker. Carried.

Communications from President.

President Stockwell thought that the Vice-Presidents of the Society should take part in the active work of the Council and asked if they received invitations to the meetings of the Council.

President called the attention of the Board to the fact that at the present time there was no Assistant to the Editor of the Journal, and that there was a vast amount of work connected with the Journal that was being done by one man; that in case he should take a vacation for a longer or shorter period or for any other reason be unable to attend the work, no one else was familiar enough with it to carry it on without considerable delay, and asked the Council to consider the advisability of appointing an Assistant Editor.

There are at the present time in the hands of the President a number of very old books and instruments which he would gladly give to the State Society as a nucleus for a museum if some suitable depository could be provided by the Society, looking forward to a time when the Society shall have a permanent building or library in one of the cities of the State.

Each County should appoint its own committee of one on Legislation and Special Work, who is expected to represent it as an auxiliary to the State Committee on Legislation and Public Policy, and also as an auxiliary to the National Legislative Council. There is no need for two committees in each Society, one to represent the National and one the State Committee—the work of each is practically identical. Each County Society should know the one fitted for this special work better than any one at the head of the State or National Committee.

In order to make the suggestions of Dr. W. E. Coates, Chairman of the Committee on Tuberculosis, effective I should recommend that an appropriation (perhaps \$50) should be made to

send his bulletin to the physicians of the State and to inaugurate co-operative work on the part of the County Societies. There is a state of apathy on the part of the profession at large which is to be deplored. The public should be educated as to the character and insidious work of tuberculosis and the medical men are the ones to do it most effectually, by lectures and schools of instruction for the public.

By Dr. Haughey: That the communications from the President be accepted and placed on file, and that the Chairman refer it as he thinks best, either to committees or to the entire body. Supported by Dr. Small and carried.

#### Communications from Chairman.

Financially the Society is on an excellent basis, the past year has been profitable in every way. All debts are paid and a comfortable balance remains in the treasury, notwithstanding the extraordinary disbursements of the past year. We owe cordial thanks to the Treasurer, Secretary-Editor and assistants. The Secretary-Editor should have some one associated with him who will be able to take up the work when he leaves off for vacation, illness, or any other reason.

Dr. McCormack's work in Michigan has been very stimulating to the society and we owe him an expression of appreciation for the work he has so ably done.

By Dr. Willson: That the Chairman appoint a committee to consider the appointment of an Assistant Secretary-Editor. Supported by Dr. Bulson and carried.

Chair appointed Drs. Willson, Dock and Baker, and asked the Secretary to act with them in an advisory capacity.

The subject matter of the President's communications was referred as follows:

Relation of Vice-Presidents to the Council, and Committee on Legislation and Special Work, to the following committee: Drs. Haughey, Small and Baker.

Suggestions in regard to a depository for valuables belonging to the Society, and for a collection which may form a nucleus for a museum—Drs. Bulson, Spencer and Dock, with the President in an advisory capacity.

Report of General Secretary-Editor read by Secretary Schenck.

By Dr. Baker: That the report be accepted and the different sections be referred to standing or special committees as Chairman may deem

proper. Supported by Dr. Haughey and carried.

#### Report referred as follows:

All that portion pertaining to county societies, to Committee on County Societies.

All of balance to Publication Committee.

Chair appointed Dr. Baker Chairman of Publication Committee to succeed Dr. Herdman, deceased.

In the absence of Drs. McMullen and Dodge, Chair requested Dr. Baker to confer with Dr. Small on the Committee on Finance.

Report of Treasurer read by Dr. George W. Moran.

By Dr. Willson: That the report be accepted and referred to the Committee on Finance. Supported by Dr. Baker and carried.

#### Report so referred.

Chair asked all Committees to take into consideration and report upon what portion, if any, of Treasurer's and Secretary's reports should be given to the local press, as some points brought out are of general interest.

Chair called for reports of Councilors in numerical order. After second and third districts had reported a recess was taken for luncheon to meet again at 2 p. m.

Council called to order at 2 o'clock, and was joined by Dr. Dodge.

Reports of Councilors resumed. The county societies of the State are generally in a very flourishing condition. Much benefit has been derived from Dr. McCormack's lectures, and post graduate schools have been started with marked success in several counties. Some difficulty was reported in Branch, Barry, Cass. and Isabella. Suggested by Dr. Dodge that Isabella join with Gratiot to form one society.

#### Reports of Committees.

By Dr. Willson:

Your committee, to whom was referred the question of appointing an Assistant Secretary-Editor so that he may be trained in the work of the Journal and be able to act independently, if it becomes necessary on account of vacation taken by the Secretary, or on account of illness, recommend that an Assistant Secretary-Editor be employed by the Society and we leave the selection to the present Secretary; salary not to exceed \$300.

By Dr. Haughey: That the recommendation



be adopted. Supported by Dr. Bulson and carried.

We commend very heartily the work of the Secretary and the manner in which he has conducted the Secretaryship and Editorship of THE JOURNAL, and we would recommend that to facilitate the work he has to do, a mimeograph be purchased and that he be empowered to purchase same.

By Dr. Haughey: That the recommendation be adopted. Supported by Dr. Baker and carried.

We further recommend that the date of issuing THE JOURNAL be anywhere from the 10th to the 15th of the month, as most convenient.

By Dr. Haughey: That the recommendation be accepted and adopted. Supported by Dr. Bulson and carried.

We recommend that the Secretary cause a reprint to be made of the McCormack lectures as they appear in THE JOURNAL to the number of 3,000, and that these be mailed throughout the State to the prominent members of the Judiciary, Bar and Clergy, and that he advertise in THE JOURNAL that the County Societies and members can procure them from the General Secretary.

Supported and carried.

Report of Committee on Finance, Dr. Dodge, Chairman.

Your Committee has examined the accounts of the Treasurer and find same correct.

By Dr. Willson: That the report of the Committee be accepted and adopted. Supported by Dr. Baker and carried.

Report of Committee on County Societies, Dr. Haughey, Chairman.

Your Committee on County Societies compliment all county societies that have adopted the Post Graduate work as recommend by Dr. McCormack and offer to them any support in their work that may be in our power to give.

We recommend that Cass County be transferred from the third district to the fourth district.

By Dr. Baker: That the recommendation be accepted and adopted. Supported by Dr. Willson and carried.

We recommend that Branch County be transferred from the second to the third district.

By Dr. Baker: That the recommendation be accepted and adopted. Supported by Dr. Dock and carried.

Committee did not have time to consider methods now in practice of sending individual receipts to members when they pay their dues. It has occurred to me that it would be better to send receipts in blank to County Secretaries, and they could fill them out when dues are paid.

By Dr. Willson: That recommendation be accepted and adopted. Supported by Dr. Haughey.

General Secretary Schenck remarked that that would be the ideal way if all county secretaries could be depended upon, but that it had been tried in one of the counties with the result that five members held receipts from the State Society when the Society had received no dues from them.

Recommendation withdrawn.

Report of Committee on Depository for valuables of State Society, Dr. Bulson, Chairman.

Committee agrees that it is the proper thing to have a place of safety for the documents, records and things of value to the Society. We suggest that a safety vault to be under the direction and care of the Secretary and in connection with his office would be advisable.

We therefore recommend that a place of this kind be secured and made a commencement for the collection of valuable documents for the Society and place of safety. Looking forward to a time when we may have some more permanent and better place, we feel that a safety vault would be all we could recommend at the present time. Committee do not limit expense for same.

By Dr. Willson: That the recommendation be accepted and adopted. Supported by Dr. Haughey.

Subject received considerable discussion, some thinking a committee ought to look for grounds and building, or room or suite of rooms in one of the public buildings of the State. Dr. Dock suggested placing valuables in care of the University of Michigan where they would be well taken care of, marked with the donor's name, and could be inspected at any time.

By Dr. Haughey: (As a substitute to Dr. Willson's motion) That the report of committee be accepted and committee be continued, with power to continue work as suggested. Supported by Dr. Dodge and carried.

We recommend that each County Society elect at its annual meeting one member to serve on the "Committee on Legislation and Special Work."

By Dr. Willson: That the recommendation be

accepted and adopted. Supported by Dr. Spencer and carried.

In compliance with the suggestion of our Chairman that the committees take into consideration what portion of our reports be given to the press, Committee would recommend that the Publication Committee and Secretary of State Society be empowered to give such matter to the public press as they consider proper.

By Dr. Dodge: That the report of committee be accepted and adopted. Supported by Dr. Small and carried.

As to the relation of Vice-Presidents to the Council the Committee wish to state that for two or three years after reorganization the Vice-Presidents were always invited to attend this meeting. Just at present I cannot remember of one ever being here. It is possible that there may have been one. If the Council so desire the Secretary will ask them, in future, to come. The Committee, however, recommend that we leave that matter as it is.

By Dr. Dodge: That the recommendation be accepted and adopted. Supported by Dr. Baker and carried.

Miscellaneous business.

By Dr. Baker: That the Council recommend to the House of Delegates an amendment to the Constitution providing for an additional Councilor District for the northern part of the State.

Supported by Dr. Dodge and carried.

By Dr. Spencer: That the General Secretary give special notice to Barry County that they belong in the Fifth District, as he had been unable to elicit any replies to his letters.

Failed of support.

By Dr. Willson: That the Secretary of the Council communicate with the officers of Barry County Society in relation to their affiliation, and report at the next meeting.

Supported by Dr. Bulson and carried.

By Dr. Small: That the State Medical Society meet the 15th and 16th of May in Saginaw, the Council the afternoon before and the House of Delegates the evening before. Supported by Dr. Haughey and carried.

Dr. Baker called to the Chair.

By Dr. Burr: That Dr. Stockwell be requested to investigate in detail the matter of insurance fees and incorporate in his Presidential Address

a recommendation setting forth in detail what physicians may do considerably in the matter of fees without violating any statute.

Supported by Dr. Haughey and carried.

Election of Secretary Editor.

By Dr. Haughey: That the rules be suspended and the Chairman of the Council cast the unanimous ballot of the Council for Dr. Benjamin R. Schenck for Secretary of the State Society for the ensuing year.

Supported by Dr. Bulson and carried.

Dr. Schenck declared unanimously elected.

By Dr. Haughey: That the Chairman cast the unanimous ballot of the Council for Dr. Geo. W. Moran for Treasurer for the ensuing year. Supported by Dr. Bulson and carried.

Dr. Moran declared unanimously elected.

By Dr. Haughey: That the Publication Committee, acting with the Editor of THE JOURNAL, decide on which State Journals it would be profitable to make exchanges with.

By Dr. Bulson: That we place at the disposal of the Committee on Tuberculosis fifty dollars, for postage and other current expenses. Supported by Dr. Baker and carried.

By Dr. Bulson: That the Council adjourn to meet Tuesday afternoon, May 14th, 1907, at Saginaw. Supported by Dr. Dodge. Carried.

W. H. HAUGHEY,  
Secretary of Council.

### Standing Committees.

Committee on Finance—W. T. Dodge, Big Rapids; B. D. McMullen, Cadillac; S. I. Small, Saginaw.

Committee on County Societies—W. H. Haughey, Battle Creek; Theo. A. Felch, Ishpeming; A. F. Bulson, Jackson; A. H. Rockwell, Kalamazoo.

Committee on Publication—Chas. H. Baker, Bay City; Mortimer Willson, Port Huron; R. H. Spencer, Grand Rapids; Geo. Dock, Ann Arbor.

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## County Society News

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### EIGHTH DISTRICT.

The annual meeting of the Eighth Councillor District was held under the auspices of its Councillor, S. I. Small, and the Saginaw County Med-

ical Society, at the East Saginaw Club, on December 4th, 1906, and was very well attended. The program of the day began with a literary session which was called to order in the club parlors at 4:30 in the afternoon, during which papers were read by Doctors Charles G. Jennings, David Inglis and Fletcher S. Smith, followed by discussions of much interest and outlined in part as follows:

**Dr. Jennings**—Subject: “**The Unusual Symptoms of Cholelithiasis.**” It was the opinion of the doctor that there were very few diseases of the abdominal and thoracic regions but what might be symptomatically simulated by gall-stones; for instance: functional disturbance of the heart without any other trouble; pulmonary disease with cough, fever, and whole symptom complex; vomiting and pain of gastritis; colic and jaundice—symptoms too late to wait for; chronic jaundice with enlarged bladder almost always not stones; jaundice of malignant cases is continuous and deeper; the fever of gall-stones has a sharp rise which continues for a few days and subsides.

Discussion: Doctors B. B. Rowe, S. C. J. Ostrom, J. W. McMeekin, F. B. Florentine and others.

**Dr. Rowe** thinks gall bladder troubles to be frequently overlooked in the search for other diseases as apparently indicated, and says a positive diagnosis cannot always be made in these complex cases. Observed instances of apparent appendicitis, gastric ulcer, gastralgia, floating kidney, and diseases of adjacent organs which ultimately proved to be cholelithiasis.

**Dr. Florentine** spoke of the difficulty in the diagnosis of cholelithiasis due to the disease of adjacent organs giving symptoms referable to the gall-bladder, such as the stomach, liver, duodenum, appendix, etc. He cited a case of a man who had for some time been suffering from gall-stones and latterly developed some unusual symptoms in the lower abdomen referable to the appendix, finally was operated on for appendicitis; the appendix was gangrenous, also a large gall-stone was found in the middle part of the ileum.

**Dr. Inglis**—Subject: “**On the Puzzle of Transient Paralysis.**” The doctor dealt with cases of recurrent paralysis apart from the purely functional or hysterical types; mentioned one class

of cases produced by small localized areas of edema of the brain caused by interstitial nephritis; others of anemia of localized areas from weakened heart action and arterio-sclerosis, which might be temporarily relieved by judicious use of digitalis. Hysterical cases believed to be the “going on a strike” of patches of the cerebral cortex.

Discussion: Doctors Robert McGregor, C. B. Burr, Mortimer Willson, F. B. Florentine and others.

**Dr. McGregor** alluded to interesting cases of transient paralysis which had come under his own observation, and expressed his belief that in the majority of cases of recoverable paralysis of a non-functional character a toxic agent of some kind was the causal factor; this was especially true in the monoplegia and hemiplegia of uremia. Certain cases were to be explained by arterio-sclerosis and the rise and fall of blood pressure; hysteria in whole or in part played an important role in the transitory paralyzes of trauma.

**Dr. Burr** spoke at length of the frequency of of a syphilitic and functional character and expressed the opinion that those cases that depended upon minute disseminated areas of softening must sooner or later become permanent.

**Dr. Smith**—Subject: “**Pharmacopoeia Praecox.**” The doctor’s paper will appear in a future issue.

At 8:30 in the evening the dining hall was thrown open, displaying a most inviting repast, to which about 55 of the delegates seated themselves and banqueted the stomach and the mind, for the after-dinner talks were delightful in association, instructive in ideas and amusing in repartee, and demonstrated a marked efficiency on the part of the doctors in the concentration of witticism as well as the mobilizing of energy nutrient.

Besides the local membership, there were present Drs. Charles G. Jennings, Detroit; David Inglis, Detroit; C. B. Burr, Flint; Mortimer Willson, Port Huron; Bernhard Friedlander, Sebewaing; F. W. Hammond, Akron; W. O. Cubbage, Freeland; F. T. Lamb, Alma; A. L. Seeley, Mayville; Dr. Garvin, Millington.

This meeting took the place of the regular quarterly meeting of the Saginaw County Society.

P. S. WINDHAM, Sec’y.



## BAY.

The members of the Bay County Medical Society on the occasion of the annual meeting were entertained at the home of the President, Dr. F. E. Ruggles.

Dr. George Dock, of the University of Michigan, was also present as a guest of Dr. Ruggles.

At 8 p. m. a delightful banquet was served, after which Dr. Dock read a very excellent paper on "Vaccination, Anti-Vaccination and Organized Vaccination," which was fully discussed.

At the business session following, four new members were voted in, bringing the total membership up to 55. Officers were elected for the ensuing year as follows: President, Dr. A. W. Herrick; vice-president, Dr. T. A. Baird; secretary, Dr. R. C. Perkins; treasurer, Dr. C. H. Baker.

The next regular meeting occurs in January.

The past year has been one of awakening interest and activity in the society. Eleven new names have been added to the membership list and monthly meetings have been held except during the summer months of July and August.

Papers have been read by members and others as follows:

January—Paper on "Gonorrhoea," by Dr. J. A. McLaudress.

February—Address on "Diseases of the Ductless Glands and Organotherapy," by Dr. Alexander Lorand, Vienna, Austria.

March—Paper on "Tuberculosis," by Dr. Jno. McLurg.

April—Paper on "Internal Secretions," by Dr. D. McFayden.

May—Paper on "Surgical Treatment of Typhoid Fever," by Dr. Hal C. Wyman, Detroit.

June—Paper on "Milk Infections and Treatment," by Dr. G. W. Moore.

September—Social meeting.

October—Paper on "Diseases of Intestine With Special Reference to Diagnosis," by Dr. Virgil Tupper.

November—Paper on "General Consideration of Fevers," by Dr. T. A. Baird.

December—Paper on "Vaccination, Anti-Vaccination and Organized Vaccination," by Dr. Geo. Dock, of the University of Michigan.

A post-graduate school was organized the first of November, sessions being held weekly until the holidays. At present three courses are being

pursued, viz.: Physical Diagnosis, Dr. Jno. McLurg; Surgical Diagnosis, Dr. Virgil Tupper; Practical Anatomy, Dr. R. C. Perkins. Beginning with the new year, however, other courses will be added and meetings held at least once weekly with a monthly quiz.

The city council has granted the society the use of three rooms in the city hall. These rooms will be used for a place of meeting and also for library and laboratory purposes, it being the aim of the society to establish a medical library and to fully equip a laboratory for the use of the members generally and for the City Board of Health.

Some "missionary" work is being undertaken with the druggists and newspapers, relative to the advertising of patent medicines, etc., and other undesirable advertising and these efforts are being met with some degree of success.

The members of the society as a whole are enthusiastic over the work that has been done and what is to be accomplished, so that the year 1907 promises to be one of marked advancement toward that millennium of which Dr. McCormack spoke on the occasion of his visit to Bay City on the 2nd of November, '06.

R. C. PERKINS, Sec'y.

## DELTA.

At the annual meeting of the Delta County Medical Society, held at Escanaba Dec. 14th, 1906, the following officers were elected for the ensuing year: President, A. L. Laing, Rapid River; vice-president, C. L. Girard, Escanaba; secretary, H. W. Long, Escanaba; treasurer, Wm. Elliott, Escanaba; director, three years, W. A. Lemire, Escanaba; delegate, A. L. Laing, Rapid River; alternate, W. J. Laird, Nahma.

The Society followed its usual custom of having as its guests at the annual banquet a representative of each of the professions of the county.

Dr. C. L. Girard, of Escanaba, presented a very able paper, entitled "A Comparison of the Old Time Family Physician and the Modern Practitioner."

H. W. LONG, Sec'y.

## GRAND TRAVERSE.

At the meeting, December 18, 1906, Dr. W. E. Moon read a paper on Syphilis of the Nervous System.

Abstract: \* \* \* Our knowledge of the true nature of this important subject is of comparatively recent date. \* \* \* The statements of John Hunter \* \* \* in 1778 that "*no brain or other viscus diseased by syphilis had ever been seen*" no doubt retarded progress in pathological knowledge for many years. \* \* \* Since the great work of Sternberg and Heubner, many articles have appeared on the subject and we now know that syphilis may affect any part of the nervous system and while it usually occurs in the secondary and tertiary stages it may occur in the primary stage; cases in my own experience have just evidenced themselves in the nervous system. \* \* \* We are indebted to Fournier for the statement that in cases where there is slight cutaneous eruption there is greater liability for the nervous system to become affected. \* \* \* In syphilitic diseases of vessels the arteries and veins may be affected. There is usually a progressive diminution of the caliber of the vessel; the lumen may be partly or entirely occluded and as a result thrombosis usually follows with malnutrition of the part supplied.

When the cerebral vessels are affected there may be an attack of apoplexy followed by a degree of paresis to complete paralysis, depending on the degree of occlusion of the vessels. Often the first symptoms are those of neuresthenia and later more or less suspension of function. \* \* \* Under the use of stimulant and anti-syphilitic treatments the patient may recover if the vessel is only partly occluded. \* \* \* An attack of apoplexy occurring between the ages of 16-45 is always suggestive of a specific cause.

The more serious results of the toxins of syphilis are in the progressive degenerations which develop slowly many years after the initial lesions \* \* \* Gumma may appear in from 2-10 years in any part of the brain, but more commonly about the crus and pons. \* \* \* It is often difficult to distinguish between these and other tumors of the brain and cord, so \* \* \* neurologists \* \* \* give the patient the benefit of the doubt and treat all cases for a time with inunctions of mercury and large doses of K I. If the case be one of specific origin marked changes will be observed in the course of 4-6 weeks. \* \* \* Among the psychoneuroses the symptoms assume so extensive a range that they simulate nearly all known forms of cerebral disease \* \* \* involving all functions of the nervous apparatus—sensory—motor—vasomotor and trophic. \* \* \* The headache more or

less generalized over the entire head is paroxysmal or quasi-periodical and worse toward night. I know of no symptom more suggestive than this peculiar headache. \* \* \* Vomiting and vertigo may result from it. The next important symptom in my experience is defect in mental function, such as weakness of memory, general mental apathy, inability to concentrate the attention and often a tendency to fall asleep while at work. The changeability of symptoms must be remembered; mental dullness may be followed by periods of apparent restoration of health, then mental dullness again. Symptoms of compression and destruction of the cranial nerve roots are common. \* \* \*

#### Discussion.

**Dr. H. B. Garner** said: There is no subject or disease so extensive in its symptomatology and which requires so much skill and tact in the physician. The history of the case as given may or may not suggest syphilis, but K I will often clear the diagnosis. I remember hearing an ophthalmologist who declared the eye grounds were a quick means of diagnosing syphilis of the nervous system. Headaches are the frequent permanent symptoms. No disease, it seems to me, is so easily overlooked or so generally misrepresented to the general practitioner.

**Dr. Wilhelm:** I believe K I and Hg are depended upon too much for diagnosis. I believe there are other and more scientific means for determining the disease.

**Dr. Thompson:** I agree with Dr. Wilhelm that too much stress is put upon the "therapeutic test." The so-called "alterative treatments" may help others than syphilitics.

**Dr. Fenton:** What per cent of paralysis and apoplexy can be attributed to syphilis?

**Dr. Moon:** It is said that 75 to 90 per cent.

**Dr. Lawton** reports the findings of Kraft-Ebing briefly in his belief that paresis was dependent directly upon a previous history of syphilis.

The Tallman treatment was mentioned for the improvement of nervous and mental diseases.

M. M. CANAVAN, Sec'y.

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INGHAM.

The regular meeting of Ingham County Medical Society was held in Lansing, Jan. 10, 1907. President Dr. G. B. Wade was in the chair. As the subjects to be considered were of interest to

school officials, all members of the Lansing School Board had been invited to attend and participate in the discussions. Some of them were present. Mr. W. H. French, Deputy Superintendent of Public Instruction, was also present and assisted in the discussion.

**Dr. Samuel Osborn**, of Lansing, read a paper upon "**School Hygiene**," the discussion of which was opened by **Dr. L. L. Segar**, of Leslie. In the discussion of this paper, **Dr. J. W. Hagadorn** called the attention of the society to the fact that among the most intelligent citizens of Wayne county, physicians, lawyers, ministers, teachers, etc., was an organization called the Society for Social Hygiene, for the purpose of furnishing parents with information for the better teaching of hygiene to their children. He moved that a committee be appointed to investigate the methods of that society and report a plan for such a society in Lansing. The president appointed Drs. J. W. Hagadorn, Samuel Osborn, and R. E. Miller.

**Mr. Thomas S. Ainge**, Sanitary Engineer, Michigan Department of Health, read a valuable paper upon "**Ventilation of School Buildings**."

**Dr. Clara M. Davis**, of Lansing, opened the discussion. The secretary announced that the program committee had arranged for a series of clinical demonstrations. At the March meeting the subject to be demonstrated will be "Lesions of the Heart," in charge of Dr. R. E. Miller. In May, "Tuberculosis" will be considered, in charge of Dr. J. W. Hagadorn. In September "Skin Diseases" will be presented, in charge of Dr. S. H. Culon. At those meetings there will be presented all the types of those diseases that can be persuaded to appear before the society. To that end the physicians named as leaders on those subjects solicit the assistance of all physicians in the county who may know of such cases. Arrangements will be made for appropriate care of patients on dates of meetings.

Dr. J. W. Hagadorn was elected delegate to the state meeting in May at Saginaw. Dr. H. B. Baker was elected alternate.

L. ANNA BALLARD, Sec'y.

#### IONIA.

At the meeting on January 10, 1907, President Pinkham gave us a fine address, emphasizing the clinical side of medical society work. He also spoke of a subject that had caused him much

worry and thought in past years, viz., incomplete premature delivery. He had solved this problem by the thorough, early use of the sharp curette. "A thoroughly curetted uterus cannot bleed."

**Dr. F. L. Hoag** presented an interesting eye clinic, retro bulbar abscess in a young lad of 12 years. No cause for this condition could be discovered.

**Dr. Hane's** masterly paper on "**Inguinal Hernia**" will appear in the next issue of the Journal.

Following out the president's suggestions to make the society largely clinical, it was decided to make Ionia the permanent place of meeting. To call to order at 1 p. m. and devote the afternoon to clinics and clinical reports.

At the close of the day a banquet follows as a part of the program, and from 7 p. m. to late in the night will be had the reading of papers and discussion of topics medical.

The resolutions being sent out by Dr. J. N. McCormack, of Bowling Green, Ky., in regard to life insurance fees were unanimously adopted.

C. S. COPE, Sec'y.

#### JACKSON.

The program for the post-graduate course for the remainder of the year is as follows:

Tuesday, February 12—Chairman, R. Grace Hendrick. I. The Accidents of Labor: 1. Causes and Prevention, P. Hyndman; 2. Treatment, C. D. Munro.

Tuesday, February 19—Chairman, C. R. Wendt. I. Appendicitis: 1. Pathology and Diagnosis, Wm. Lyon; 2. Treatment, R. W. Chivers.

Tuesday, February 26—Chairman, A. E. Bulson. I. Clinical Conference.

Tuesday, March 5—Chairman, H. D. Hodge. I. Stomach: 1. Anatomy and Physiology, E. L. Morrison; 2. Methods of Clinical Examination, R. Grace Hendrick.

Tuesday, March 12—Chairman, M. C. Strong. I. Ulcer and Cancer of the Stomach. 1. Pathology and Diagnosis, G. R. Pray.

Tuesday, March 19—Chairman, C. D. Munro. I. Treatment of Gastric Ulcer and Cancer, E. C. Taylor.

Tuesday, March 26—Chairman, E. A. Martindale. I. Clinical Conference.

Tuesday, April 2—Chairman, T. S. Langford. Joint meeting with Dental Club.



Tuesday, April 9—Chairman, D. E. Robinson.  
I. Cancer of the Uterus, C. G. Parnall.

Tuesday, April 16—Chairman, M. P. Guy. I.  
Blood: 1. Normal Blood, F. W. Rogers; 2.  
Methods of Examination, F. J. Gibson.

Tuesday, April 23—Chairman, H. D. Brown. I.  
Blood: 1. Pernicious Anemia, Secondary Anemia, Chlorosis, A. R. Williams; 2. Leukemia, J. C. Kugler.

Tuesday, April 30—Chairman, W. J. Marks. I.  
Clinical Conference.

Tuesday, May 7—Chairman, G. R. Pray. I.  
Otitis Media, O. S. Hartson. II. The Tonsils, T. S. Langford.

Tuesday, May 14—Chairman, J. M. McColgan.  
I. Practical Methods of Milk Modification, A. J. Roberts. II. A Clean Milk Supply and How to Obtain It, H. D. Hodges.

Tuesday, May 21—Chairman, C. H. Lewis. I.  
Toxemia of Pregnancy and Eclampsia, A. E. Martindale. II. Treatment, M. C. Strong.

Tuesday, May 28—Chairman, F. J. Walsch. I.  
Clinical Conference.

Tuesday, June 4. Joint meeting with Bar Association. Chairman, N. H. Williams.

Tuesday, June 11—Chairman, C. W. Shaver. I.  
Summer Diarrheas of Children, E. L. Morrison. II. Treatment, C. R. Wendt.

Tuesday, June 18—Chairman, A. J. Roberts. I.  
Clinical Conference.

D. E. ROBINSON,  
R. GRACE HENDRICK,  
C. G. PARNALL,  
Program Comm.

#### KENT.

On December 12, 1906, the Kent County Medical Society held its annual meeting and elected the following officers and delegates: President, Dr. S. L. Rozema; vice president, Dr. Wm. Fuller; secretary, Dr. Alden Williams; treasurer, Dr. F. C. Warnshius. Delegates—First, Dr. Gowner; Second, Dr. J. D. Brook. Alternates—First, Dr. W. H. Kassagian; Second, Dr. J. J. Rooks.

We are planning this year to be more systematic in our program scheme and have chosen months ahead our sixteen men for the sixteen meetings, together with some of the men who will take part formally in the discussion. We hope this year to make more of the educational

side of the society. Will report later in regard to progress.

The program for the year is as follows:

January 9—Dr. Collins Johnston, Heart Murmurs. Discussions: Opened by G. L. McBride, C. H. Fairbanks, Thos. Irwin.

January 23—Dr. Ralph Spencer, Period of Adolescence. Discussion—S. L. Rozema, E. S. Browning, H. J. Chadwick.

February 6—Dr. Wm. DeLano, Management of Contagion from Public Health Standpoint. Discussion—W. J. DuBois, Rowland Webb, Alden Williams.

February 20—Dr. J. B. Whinery, Age and Objective Symptoms in Pediatric Diagnosis. Discussion—Wm. Northrop, J. A. McColl, Jas. Ardiel.

March 6—Dr. Ralph S. Apter, Medical Philanthropy and the Municipal Poor. Discussion—G. K. Johnson, Jno. Kramer, S. Sicott.

March 20—Dr. J. B. Hilliker, Post Mortem Findings as Key to Cause of Death. Discussion—Simeon LeRoy, T. M. Koon, Geo. Baert.

April 3—Dr. H. Vandenberg, Remarks on Examination of Patients Sufferings from Stomach Disorders. Discussion—Jno. Brady, A. V. Wengar, J. J. Rooks.

April 17—Dr. Richard Smith, Surgical Treatment of Gall Stones (with Stereopticon). Discussion—J. B. Whinery, J. Orton Edie, F. C. Warnshius.

May 1—Dr. J. B. Griswold, 'Border-line' Psychosis. Discussion—Wm. Fuller, B. R. Corbus, D. E. Welsh.

May 15—Dr. G. L. McBride, Etiology and Treatment of Cardiac Lesions. Discussion—Thos. Irwin, H. W. Catlin, A. G. Burwell.

May 29—Dr. Louis Roller, Ophthalmia Neonatorum. Discussion—F. D. Robertson, J. R. Rogers, J. H. Innis, E. W. Tolley.

June 5—To be announced later. Probably a paper by Dr. Eugene Boise on The Nature of Shock.

September 4—Dr. J. S. Edwards, Early Diseases of Childhood. Discussion—J. J. Rooks, W. H. Kassabian, Earl Bigham.

September 18—Dr. F. J. Groner, Surgery of Amputations. Discussion—S. C. Graves, F. J. Lee, C. W. Young.

The program for October 2, October 16, Oc-

tober 30, and November 13, will be announced later.

ALDEN WILLIAMS, Sec'y.

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LAPEER.

At the meeting of the Lapeer County Medical Society, January 9, 1907, the following resolution was passed:

*Resolved*, That it is the opinion of the Lapeer County Medical Society that the law requiring the registration of births should be so changed as to relieve physicians of their duties of making out birth certificates without compensation.

H. E. RANDALL, Sec'y.

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MARQUETTE-ALGER.

The fifth annual meeting of the Marquette-Alger County Medical Society was held at the Negaunee Hospital on Tuesday night, Dec. 18, 1906. President G. G. Burnett delivered an able address on matters pertaining to county societies.

Dr. C. J. Lursoy, of Negaunee, read a paper, "Pernicious Anemia with Presentation of a Case."

The officers elected for the ensuing year were: F. M. Cunningham, Marquette, president; H. S. Smith, Negaunee, vice president; H. J. Hornbogen, Marquette, secretary-treasurer; A. W. Hornbogen, Marquette, delegate to State Medical Society, with G. G. Burnett, Ishpeming, as alternate.

The president appointed a committee of three to prepare a set of resolutions relative to an amendment to the state law upon the registration of births, whereby the physician shall be reasonably compensated for this work. A copy of the resolutions to be sent to the representatives and senator from this district.

H. J. HORNBOGEN, Sec'y.

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MUSKEGON-OCEANA.

At the annual meeting of the Muskegon-Oceana County Society, Dec. 7th, it was moved by Dr. Olson, seconded by Dr. Oosting and carried: "That the annual dues in this society shall be three dollars." This action was considered necessary on account of lack of funds to pay the society's necessary expenses. Heretofore, with dues at two dollars, there has been nothing left in the treasury after the State Society dues (\$2.00 each) have been paid.

The regular meeting for Dec. 21, 1906, was postponed to Jan. 4, 1907. This action was decided upon by the Executive Committee on account of

the demand upon everybody's time preceding the holidays.

Jan. 4, 1907, was the first meeting in the new year. Dr. A. A. Smith, City Health Officer, gave a talk on "Diphtheria." Election of officers, which was deferred at annual meeting on account of lateness of the hour, was held at this meeting, and resulted as follows: President, J. F. Denslow, Muskegon; vice president, W. L. Griffin, Shelby; secretary, V. A. Chapman, Muskegon; treasurer, Jacob Oosting, Muskegon; director for three years, Sigmund Bloch, Muskegon; delegate, Charles F. Smith, Whitehall; alternate delegate, Gayfree Ellison, Muskegon.

V. A. CHAPMAN, Sec'y.

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PRESQUE ISLE.

At the annual meeting of the Presque Isle County Medical Society the following officers were elected: President, Dr. John Young; vice president, Dr. V. W. Shirley; secretary-treasurer, Dr. Wm. W. Arscott. One new member was also elected, Dr. B. G. Larke, of Rogers City. Delegate to state convention, Wm. W. Arscott, Rogers, Mich.; V. W. Shirley, alternate.

WM. W. ARSCOTT, Sec'y.

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SANILAC.

The Sanilac County Medical Society, at its fifth annual meeting held in Sandusky, elected the following officers for the ensuing year: President, J. Frazer, Lexington; vice president, D. L. Alexander, Sandusky; secretary-treasurer, G. S. Tweedie, Sandusky; delegate to state meeting, J. W. Scott, Sandusky; alternate delegate, C. G. Robertson, Sandusky. The next meeting will be held at Marlette.

G. S. TWEEDIE, Sec'y.

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WAYNE.

At the Medical Section, December 10, 1906, Dr. F. T. F. Stephenson read a paper on "Active Oxygen: Some Recent Chemical Products of Interest to the Medical Profession."

Abstract.

**Historical Sketch of Oxygen.** Used medicinally as molecular oxygen from cylinders of compressed gas; as combined oxygen, in peroxide of hydrogen; as ozone. Peroxide of hydrogen

as commercially sold is of irregular composition, and its acidity limits its usefulness, and produces irritation. If not acid in reaction, it will not keep at all. Report on composition of eleven samples of peroxide, purchased from drug stores in Detroit. Only one showed pharmacopoeial amount of acid, rest higher. Ozone not transportable, expensive to produce on small scale, and useless in medicine directly. Valuable in sterilization of water and sewerage. Water sterilization costs from 2.45 to 5.00 cents per 221 gallons, when operated on large scale, as by municipalities.

Fused perborate of sodium (ozone), when placed in water, produces oxygen, as calcium carbide produces acetylene. A simple generator, weighing less than three pounds, was exhibited, which will generate the pure gas, at any desirable rate, without attention after started. Gas thus generated is as cheap as the compressed gas, with the advantage of surety of supply, portability of generator, and quality of product. Expense no higher than for compressed gas.

Peroxide of calcium, a yellow powder, slowly dissociates in water with production of peroxide of calcium. Action hastened by acids, with formation of insoluble salts of calcium, removable by filtration or sedimentation. The peroxide breaks up, setting free nascent oxygen, which sterilizes the water.

The sterilization is rapidly secured (15 minutes) at a cost of not more than one cent per 200 gallons, and the residuum of calcium sulphate is so small as to be negligible. Useful in armies, hospitals, on ships, and in small towns and villages, as well as in homes.

Peroxide of calcium is also useful in bleaching, ageing liquors, and as a sterilizing agent for milk and foods. As the residual salts of calcium are normal constituents of food, and as the sterilization is sure and rapid, this compound appears as a very favorable one for the further attention of the profession.

Perborate of sodium added to water produces peroxide of hydrogen in alkaline solution. One pound will make one gallon of the solution, in a few moments, in most active form (alkaline solution).

Peroxide of magnesium produces peroxide when dissolved, and in the form of a tablet (combined with citric acid) may be added to a glass of water, making it sterile by the time the tablet is dissolved. This will be a very useful form for the traveling public.

Peroxides and perborates of the other alkali earths and zinc were exhibited. Attention was called to the fact that ozone possessed the function of plant life, in absorbing carbon dioxide, and setting free oxygen. Animals or man may be sealed up in airtight containers, with no discomfort as long as supply of ozone is present. The usefulness in submarine work is evident, and the value in the sick room is suggested.

**Discussion:** Dr. Sigel has had experience in generating oxygen by this method, and considers it the best one. The ordinary cylinders do not contain the supposed amount. He uses perborate of sodium in baths; the bubbles of oxygen coming in contact with the patient's skin cause a slight hyperemia which is of therapeutic value.

**Dr. Yarborough:** Alphozone, the organic peroxide, owes its utility to liberating active oxygen, 50-100 times as strong, bactericidally, as pure hydrogen peroxide. Organic peroxides do not effervesce in contact with pus, and thus can be used in closed cavities where it would be dangerous to use hydrogen peroxide.

**Dr. W. M. Donald** presented a case of hemophilia.

The subject, a young man aged twenty-six, is one of a family of three boys, in whom the tendency towards free hemorrhage was marked from birth, but in whom so far as ascertainable there is no hereditary history.

The family history is as follows:

The mother, aged fifty-eight, a Scotch-Canadian, has one brother and one sister living, married and childless. No tendency towards hemorrhage in either case. Her parents died at about fifty and sixty years of age, one of tuberculosis and one of dropsy. Her grandparents died about seventy, cause unknown. The mother is a very intelligent woman, and never knew of any tendency towards bleeding in the ancestors. The mother has five uncles and aunts living, all with large families, and none showing tendency towards hemorrhage.

The family history on the father's side is equally negative, there being three brothers with large families and none showing this tendency towards hemorrhage. The father states that he had an uncle who was a "free bleeder," and who at one time bled very seriously from an extracted tooth, but that is the only case known on his side of the family. The father himself bleeds freely at times but never dangerously.



Of the three brothers, in the family under discussion, two are living, aged twenty-one and twenty-six, while one died not long ago, at the age of twenty-seven, from hemorrhage of the gums following extraction of an ulcerated tooth. The two living members have shown no marked tendency towards hemorrhage within the last year.

All three children were hemorrhagic from infancy. The hands of the eldest were ecchymotic at birth, and umbilical hemorrhage was severe. The other two children did not show the tendency until about two years of age, when a lacerated tongue in each child (one from a tooth and one from a fall upon a piece of tin) produced an almost fatal hemorrhage in each case.

As they grew older and commenced to play, ecchymoses appeared under the skin of the legs, hands, arms, etc., from blows received while playing ball, or while engaged in the ordinary sports of childhood.

From eleven to fifteen years of age they all showed a tendency towards hemorrhage into the joints, particularly into the knee and ankle joints. These hemorrhages were usually the result of slight blows or sprains, and disappeared spontaneously in from three to twenty-one days.

The repeated hemorrhages into the knee joints finally caused atrophy of the muscles of the legs in all three cases.

So-called "rheumatic weather" (damp or rainy) seems to have a marked disposition in producing synovial hemorrhages or effusions. In some cases these effusions appear to be serous, but when they are at all severe they are undoubtedly hemorrhagic.

Premonitory flushes (vaso-motor) appearing on the face and upon the affected joints were fairly constant.

Effusions were likewise ushered in with much nervous irritability.

Bleeding from the nose has never been at all serious with any members of the family.

The gums have been a fruitful source of trouble. As stated above, one died at the age of twenty-seven from this cause. The others are constantly suffering from exhausting and spontaneous hemorrhages from this part.

Apples will produce hemorrhages of the gums more quickly than any other article of food.

Two of the boys have suffered severely at times from hematuria and the third has had a large hematoma surrounding the right kidney.

Incised wounds give less trouble than jagged.

An ordinary pin prick or scratch never causes any anxiety or trouble.

Clots forming on wounds are always soft and wash away readily with a fresh supply of blood, so that a clot may form many times on a wound before it is finally organized sufficiently to check the flow of blood.

Clotting of the blood outside of the body is very slow and clots are very soft, taking usually one-half day to organize into a jelly-like consistency, there being never any separation into liquor sanguinis and fibrin clot.

All subjects are soft and thin skinned.

Two are blondes and one a brunette.

There is no evidence of any change in the blood-vessels macroscopically.

All show pretty thoroughly the well-known superior intelligence of bleeders.

Of the two surviving members of the family, the one aged twenty-six seems to be gradually outgrowing the hemorrhagic tendency, while the other one still suffers at frequent intervals.

The history is interesting in showing no hereditary, but what may be denominated a strong congenital tendency.

W. J. WILSON, JR.,  
Secretary Medical Section.

## Michigan Personals

Dr. S. S. Hanson, of Port Huron, has been appointed county physician to succeed Dr. A. D. McLaren.

Dr. Flemming Carrow, of Detroit, is a candidate for Regent of the State University.

Dr. W. H. Morley has resigned from the position of assistant in gynecology and obstetrics at Ann Arbor, and will spend some time in Munich. Dr. W. M. Signor was appointed to fill the vacancy.

Dr. I. S. Townsend, formerly of Cincinnati, has opened an office in the Park building, Washington Ave., Detroit, succeeding Dr. Samuel Bell.

Dr. H. F. Thomas, former congressman from the fourth district, will succeed Dr. H. W. Mills, who died suddenly on Christmas Day, as surgeon of the Michigan Soldiers' Home at Grand Rapids.

Dr. George W. Irvine, of Detroit, was married to Miss Anna F. Booth, of Detroit, December 12, 1906.

Dr. J. Walter Vaughan, of Detroit, and Miss Gertrude Leffingwell, of Quincy, Ill., were married December 12, 1906.

Dr. F. A. Rutherford, of Grand Rapids, will spend the winter in Southern California.

Willis J. Kirkbridge, M. D., Fountain, Mich., was recently married to Miss Zola Pullman, of Freesoil, Ohio.

In response to an invitation from that medical organization Dr. A. P. Ohlmacher addressed a regular meeting of the Chicago Medical Society Wednesday evening, Jan. 16, 1907, on the topic: "A Series of Medical and Surgical Affections Treated by Artificial Autoinoculation According to Wright's Theory of Opsonins." The discussion was led by Drs. L. Hektoen, L. L. McArthur and J. C. Hollister. This is the second recent occasion on which Dr. Ohlmacher has brought to the profession an account of the very encouraging results of his clinical experience with opsonic therapy in many subacute and chronic infections, the first report being before the Northern Tri-State Medical Association on Jan. 8, 1907. In one particular class of diseases—those caused by the gonococcus, Dr. Ohlmacher's work, which began early last summer, is probably the first successful attempt of the kind, and he has perfected a gonococcus preparation which has given most gratifying results in such affections as gonorrheal rheumatism, epididymitis, balanoposthitis, proctitis, perineal urinary fistula, ophthalmia, conjunctivitis, vaginitis and gleet.

Dr. Carl C. Warden, of Battle Creek, has been appointed local surgeon of the Grand Trunk Railway.

Dr. S. E. Gillam and Mrs. C. E. Cowell, both of St. Johns, were recently married.

Dr. I. A. Thompson, who for 22 years has been a leading practitioner in Traverse City, removed to Grand Rapids on January 1st, where he will have offices in the Houseman building on Ottawa street, and specialize in diseases of the rectum. A book on this subject was presented to him by the Grand Traverse County Medical Society as a token of the regard the members have for him. Dr. Thompson leaves a large practice, and his many friends regret his departure.

Dr. J. W. Gauntlett, of Traverse City, is suffering from a Colles' fracture sustained shortly before Christmas.

Dr. John F. Morse was married to Miss Jean Whitney, M. D., both of Battle Creek, December 19, 1906.

Dr. Russell G. Gordanier, of Muir, was married to Miss Ivanletta Burnes, of Wacousta, December 12, 1906.

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## Deaths

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Dr. Ebenezer O. Bennett died at his home in Detroit January 1, after a short illness, aged 70. He was a graduate of the University of Michigan, Department of Medicine and Surgery, 1880; was for 19 years superintendent of the Wayne County Insane Asylum at Eloise, and later the surgeon of the Michigan Soldiers' Home.

Dr. Oliver Stewart, of Port Huron, died on January 15 at the Pontiac Asylum, from paresis, aged 45. Dr. Stewart was born in Blenheim, Ont., had been in practice in Port Huron for 19 years, and had made a specialty of nose and throat work.

Dr. Gilbert L. Rose, of Decatur, died in that city on January 5, after an illness of five days, aged 53.

Dr. Jeannette C. Welch, of Grand Rapids, died at the U. B. A. Hospital, December 31, 1906, from tubercular meningitis, aged 39. She was a graduate of the College of Physicians and Surgeons of Chicago, '02, a member of the Grand Rapids Academy of Medicine and Kent County Medical Society and of the Medical Staff of the Union Benevolent Hospital.

Dr. William Cunningham, health officer of Bay City and formerly mayor, died at his home of heart disease after a prolonged illness, aged 50. He was a graduate of the Saginaw Valley Medical College, 1897, and also of the Law Department of the University of Michigan.

Dr. DeWitt C. Howell, of Onaway, died at Harper Hospital, Detroit, Nov. 22, 1906, from cerebral hemorrhage, following an operation for malignant disease of the stomach, aged 51. Dr. Howell was a graduate of the Medical Department of the University of Michigan, 1881, was for many years chief surgeon of the Detroit and Mackinac Railway, a member of the A. M. A., and a well known practitioner.

Dr. Ira P. Collier died at his home in Detroit, December 2, 1905, from septicemia after a long illness, aged 41.



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

#### Hemorrhagic Erythema Nodosum, and the Relation of Erythema Nodosum to Purpura.—

GERONNE describes a case of Erythema Nodosum with hemorrhage into the lesions in a girl of seventeen who had had in her twelfth year an attack of articular rheumatism with purpura, which yielded to salicylate treatment; and in her thirteenth, fifteenth and sixteenth years attacks of Erythema Nodosum of increasing severity with small hemorrhages. The patient was of a decidedly neuropathic type, with some manifestations of hysteria. She had adenoid vegetations, also, and was subject to frequent "colds." The adenoids had been operated upon at various times, with recurrences, and at the time of her coming under Geronne's observation there were remnants of adenoids, enlarged turbinates, and a nasal polyp. Geronne subscribes to the current opinion that Erythema Nodosum is a specific infectious disease, without committing himself as to whether it is to be considered as a separate affection from Erythema Multiforme or not. He also believes, and cites Klippel and Lhermitte and others in support of his contention, that no sharp line is to be drawn between the infectious erythema and infectious purpura, but that the difference between them is rather in the virulence of the infecting agent and the varying degree of body resistance. He agrees with Lewin that there is an important angio-neurotic element in the affections. Applying these ideas to his case, he considers the condition of the nose and nasopharynx to have offered ready access to the infective agent, while the girl's neuropathic tendency made her peculiarly susceptible to affections which involve a dilatation of the superficial vessels with the escape of lymph or blood. The injury of the small vessels with each attack makes them more susceptible to a fresh infection, so that the symptoms increased in severity. He believes that the purpura from which his patient first suffered was a manifestation in a milder form of the same disease with which she was later afflicted.—*Zeitschrift f. Klin. Med.*, Vol. 60, p. 383.

**Hydrotherapy in True Croup.**—SADGER cites at length the evidence in favor of hydrotherapeutic procedures in croup, quoting extensively from Harder, Lauda, Priessnitz, Schildner, Klemm, Winternitz, Pingler, and others, and giving full descriptions of their methods. Remarkable results are claimed by all of them for procedures which all consist essentially in pouring cold water over the head, neck and chest of the child and then drying rapidly, the process being continued

for five to fifteen minutes or more according to the severity of the case. The respiration is said to be deepened, the swelling in the larynx to be lessened, the mucus to be removed by the coughing induced, and the color to improve rapidly. The fever is reduced, and the child goes into quiet sleep. SADGER says nothing about experiences of his own, but believes that these methods should be studied and given thorough trial.—*Arch. f. Kinderheilkunde*, Vol. 45, p. 31.

**Erythrocytosis Magalosplenica.**—SENATOR reports two cases of this rare affection, reviewing the literature of the subject and stating his opinion that in spite of the small number of cases that have been described the clinical picture is so clear and so distinct as to justify its being classed as a separate disease. Senator's cases corresponded to those previously reported in the general course and the typical symptoms of proportionate increase of red cells and hemoglobin, enlarged liver and spleen, and cyanosis. He made, however, some determinations which had not been made in the other cases, such as the respiration-volume and gas exchange, the amount of urobilin, and one brief metabolism experiment. He found no special abnormalities in the red cells, such as have been described by others, though he did observe one or two normoblasts. Of the white cells, he found the polynuclear neutrophiles normal or slightly increased, the lymphocytes somewhat diminished, the eosinophiles normal or slightly increased, the mast-cells in one case normal and in the other distinctly increased, while in his first case he observed, as has been noted by some others, some myelocytes. Variations in the leucocyte count were wide—from below normal to considerably above. The specific gravity and viscosity of the blood were increased. The metabolism observation showed nitrogen equilibrium to be present, and the various nitrogenous constituents of the urine to be in normal proportion. The total urobilin was decidedly under the normal. The respiration-volume, gas exchange, and the respiration quotient were all increased, the two latter roughly in proportion to the increase in red cells and hemoglobin. SENATOR considers the disease to be caused by an increased production rather than by lessened destruction of the red cells, and this he supposes to be due to heightened activity of the bone marrow, especially of its erythroblastic function. Regarding treatment, nothing is mentioned except occasional bleeding for temporary relief.—*Zeitschrift f. Klin. Med.*, Vol. 60, p. 257.



## SURGERY

Conducted by

MAX BALLIN, M. D.

**Appendicitis in Infants.**—KIRMISSON and GUIMBELLOT gathered from their own observation (one case), and the literature, 26 cases of appendicitis in children below two years of age. Nine of these were less than one year; 17 between one and two years old. Of these 26 cases, 19 died. All the nine less than one year old died; of the 17 in the second year of life, 10 died. All cases recovered were more than 18 months old. Operation was performed 19 times; seven times in the first year, 12 times in the second year of life. As told, all the first seven died, of the second 12 operated upon seven lived, five died. Appendicitis in infants does not seem to be so exceptional as generally believed. The affection in infants is a very rapid one and of very serious prognosis. The diagnosis is difficult; that is the reason why operation is usually done late and has bad results.—*Revue de Chirurgie*, Oct., 1906, Vol. 26, No. 10.

**Sarcoma of the Male Breast.**—The analysis of thirty-five cases of sarcoma of the male breast, gathered from literature and from author's observation, shows the following results. In twenty cases the age was mentioned:

20-25.....4	45-50.....1
30-35.....3	50-55.....5
35-40.....2	55-60.....1
40-45.....3	73 .....1

Axillary involvement is mentioned as being present in nine cases, and as absent in four cases.

The tumor was found adherent to the skin in five cases; to the tissues below in three cases; and mention of no adherence was made in seven instances.

The size as given by the various authors is as follows: A pea; cherry; hazelnut; "small hard lump;" horse bean; walnut;  $4 \times 5 \times 2\frac{1}{2}$  c. m.; plum. In four instances the size is given as that of a hen's egg; an orange; fist;  $4 \times 3$  inches; 27 inches in circumference; tumor weighed four pounds; and one tumor was the size of a "head."

The location is given as the right breast in eleven instances, and in the left breast six times. With relation to the nipple, as follows:

Above and external....5	Near pipple.....4
Above and internal....1	Under nipple...2

The growth when first seen was a recurrence in three instances. In the others the duration was: one week; "a few months" in three instances; seven months; eight months; one year; four years in two instances; five years, and seven years.

In two instances, malignant disease of the breast occurs in the family history, in one of which both the sister and the mother died of malignant breast tumor, and in the second (author's case) the mother had both breasts removed for carcinoma.

In only one instance is trauma mentioned in the history. The form of trauma was not mentioned. This was in the same case in which mother and sister had breast tumors.

The tumor apparently originated from congenital defect or benign tumor as follows: Area of dilated blood-vessels; mole; from a nodule of twenty-two years' standing; an adenoma, a fibroma and a lipoma.

In only nine cases was there an adequate description of the tumor. The most characteristic feature was the discoloration of the skin (purple, violet, pinkish, bluish, plum-color, reddish), with the dilatation of blood-vessels; and in later cases, puncture of the skin, with presentation of granulation tissue.

As to the variety of the tumor:

Spindle-celled.....12	Cystic ..... 3
Round-celled..... 7	Melanotic ..... 3
Chloroma..... 1	

The results were:

Recoveries .....	11
Recovery after fourth operation in two years..	1
Recovery with development of keloid.....	1
Recovery with development of erysipelas on second day, no recurrence after eleven years.	1
Recovery with inoperable recurrence after one year; Coley treatment, recovery.....	1
Deaths .....	3
Death after second operation within five months .....	1

F. GREGORY CONNELL, M. D., *Surgery, Gynecology and Obstetrics*, January, 1907, Vol. 4, No. 1.

## PATHOLOGY AND BACTERIOLOGY

Conducted by

A. P. OHLMACHER, M. D.

**Experimental (Trypanosome) Tabes in Dogs.**—Histologically the resemblance between the so-called sleeping sickness and progressive paralysis has been observed, particularly the degenerate changes in the nervous system and the inflammatory lesions in and about the blood vessels (infiltration with plasma cells and lymphocytes). There are also clinical resemblances between the symptoms of sleeping sickness and progressive paralysis like speech disturbance, reflex and sensory anomalies. SPIEHLMEYER in the psychiatric clinic at Freiburg, has been impressed by the similarity between trypanosomiasis and postsyphilitic affections; which has recently assumed more significance in the discovery of the probable spirochaetal origin of syphilis and the intimate relations of this parasite to the trypanosomes.

The author's experiments were made with a strain of *Trypanosoma Brucei*. In mice and rats the infection rapidly becomes general and is so acute as to preclude a study of the lesions of the nervous system, and the same consideration applies to monkeys. But with dogs SPIEHLMEYER produced a chronic disease of 9 to 10 weeks' duration and in these animals besides the stupid, sleepy condition and sluggish reflexes, he found very characteristic lesions in the central nervous system. Staining the material by Marchi's method, recent degenerative changes in the dorsal spinal roots and the sensory trigeminus root could be demonstrated. In the cervical region the most striking changes appeared in the entrance zone of the posterior spinal roots; similar areas were apparent in Burdach's column, and sparingly, in Goll's columns. Also in Lissauer's zone some degenerative foci were in evidence. The whole picture is one of a cervical tabes. There was also in two of the infected dogs an involvement of the optic nerves. The degenerative process began principally in the centripetal posterior spinal roots, and in this particular, and because of the implication of the optic nerves, the resemblance between the trypanosome tabes of dogs and postsyphilitic tabes in man is increased.—*Munchener med. Wochensch.* Nr. 48, Jahg. 53, 1906.

**Upon Agglutinins and Specific Immune Bodies in Gonococcus Serum.**—All workers who have for any length of time handled cultures of the gonococcus and of the meningococcus must have been struck by the remarkable morphologic and biologic similarity between the two organisms. Some recent work with the serum from animals immunized to these two species has brought still closer the apparent likeness. Thus BRUCKNER and CHRISTÉNAU found that the serum of a gonococcus-immune horse macroscopically agglutinated the corresponding organisms in the proportion of 1 to 100 in an hour, or 1 to 750 in twelve hours' incubation, while the microscopic clumping was evident in a dilution of 1 to 2000. The same serum also agglutinated the meningo-

coccus 1 to 100 in an hour's incubation, and 1 to 750 microscopically. Proceeding along similar lines but using a gonococcus nucleo-proteid to immunize rabbits VANNOD obtained a serum that agglutinated the gonococcus in dilution of 1 to 200 to 1 to 1000 at varying periods of 1 to 12 hours' incubation. This same serum was tested against meningococci, staphylococci, streptococci and typhoid bacilli. Except for the first named no agglutination reaction was observed. But with three strains of the meningococcus macroscopic agglutination was obtained in two hours' incubation with dilutions of 1 to 100 to 1 to 300. Further, it was established that in gonococcus serum which agglutinated meningococci, no immune body for the latter organisms was demonstrable, and that meningococcus serum held no amboceptors for gonococci, though the same serum caused pronounced agglutination of the gonococci. This strong group agglutination seems to bring into more intimate biologic contact these two important and closely allied bacterial species.—*Deutsch. med. Wochensch.*, No. 49, Jahrg. 32, 1906.

**The Origin of Kidney Cysts.**—In an extensive study of kidney cysts and cystic kidneys BRAUNWARTH concludes, among other points of interest, the following:

(1) Normal kidneys of the foetus, newborn, and nursing contain cysts in about half of the cases.

(2) These cysts are not the result of inflammation, but of developmental anomalies.

(3) More frequently still slight irregularities in structure of the urinary tubules and glomeruli are found which may become the starting point of cysts.

(4) The relatively frequent cysts in adults can be traced through intervening ages with no appreciable increase.

(5) These cysts are mostly found in kidneys apparently normal macroscopically and which microscopically show slight if any alteration.

(6) The theory that such cysts arise from retention following inflammatory reaction with its connective tissues proliferation and atrophy in the neighborhood of the kidney tubules is improbable.

(7) Kidney cysts of developmental origin grow because of inflammatory changes in their neighborhood. This explains the relative frequency of cysts in sclerotic areas of arterio-sclerotic kidneys of the aged. This also explains the more numerous macroscopic cysts in the kidneys of adults, the growth of the originally minute cyst having been favored by the sclerotic changes.

(8) The genesis of kidney cysts is analogous with that of cystic kidney. Both have their primary origin in developmental defects. A sharp differentiation between these two conditions is in many cases impossible.—*Virchow's Archiv.*, Bd. 186, Heft 3, 1906.



## PEDIATRICS

Conducted by

R. S. ROWLAND, M. D.

**Acidified Milk in Infant Feeding.**—MORSE and BOWDITCH, after a careful review of the literature and personal investigation of this subject, draw the following conclusions: Buttermilk, buttermilk mixtures and milk mixtures acidified with lactic acid bacteria, are safe foods for infants, whether well or ill. Infants thrive and gain on them for considerable periods of time. The use of a routine buttermilk mixture, as has been the custom in the past, is not as rational as that of an acidified milk mixture modified to suit the individual case, or of buttermilk modified by the addition of cream and milk sugar. The preparation of such acidified mixtures, while not difficult, is not very practical for private work. These mixtures and buttermilk are almost always taken well. The results obtained from acidified milk mixtures in cases of malnutrition and chronic disorders of digestion are not materially different from those obtained from the use of other preparations of milk of the same percentage. They are, however, worthy of a trial in cases of intractable disturbance of digestion, because some cases do much better on them than on other forms of modified milk. Practically the same, and in some instances better results are obtained in these conditions with pasteurized buttermilk, as with acidified milk mixtures. This fact suggests strongly that the good results which are obtained with buttermilk mixtures are due to low fat contents in combination with a large amount of proteid in an easily digestible form, and not to the acidity or to the action of the bacteria. Pasteurized buttermilk gives very good results when given as the first form of milk food after the initial period of water and starchy diet in acute intestinal indigestion and infectious diarrhea. It is possible that unpasteurized buttermilk will give even better results because of the action of the lactic acid bacteria on the intestinal flora. Fat free milk acidified with pure cultures of lactic acid bacteria ought, however, to be safer and more reliable than commercial buttermilk.—*Arch. of Ped.*, Dec., '06, pg. 889.

**Tics in Children and Their Educational Treatment.**—HERMANN considers early educational treatment imperative. Removal of all sources of irritation, the use of tonics and general building-up measures, though valuable, are not in themselves sufficient to effect a cure, and must be considered merely as adjuncts to the essential part of the treatment, which is educational. This consists of two parts: (1) Immobilization primarily of the parts affected. (2) Active exercise primarily of the parts affected.

The first has for its object the strengthening of the control, the inhibition of the movements. The patient is seated before a mirror. The physician standing behind directs him to remain perfectly quiet, like a statue, for a stated time. In this way the patient receives a demonstration, "ad oculum," that he can control the movements if he make up his mind to do so. He soon gains increasing confidence in his own ability to do this for a longer and longer time. At first twenty seconds may be the maximum.

The second part of the treatment consists of active exercises of the muscles involved. For the month and lips, opening and closing alone and combined with opening and closing of the eyes, etc. All movements are to be performed slowly and regularly at command and without jerking. At first each movement is repeated six or eight times, later it may be increased to a dozen or more.

In addition, breathing exercises are beneficial. Also inhibition exercises are recommended. A sharp instrument is brought quickly and repeatedly towards the patient's eyes, and he is commanded to control and repress the desire to blink the eyes and draw away the head. The face and other parts are tickled and pinched, the patient restraining the desire to move or touch the part.

These various exercises are gone through three times a day, at definite intervals. Regularity and punctuality are essential. At the beginning at least, one sitting daily should be supervised by the physician. The duration of each should be short at first so as not to exhaust or discourage the patient, and gradually increased. It is essential that the patient's interest should be excited and his attention held. For this purpose, the exercises are varied from time to time and new ones added. He is continually encouraged by calling attention to his progress and improvement, and the hope of a complete cure is held out as a reward. It is never advisable to punish or threaten punishment. A short rest is taken between the exercises and the patient is commanded to remain perfectly quiet. This treatment must be kept up in some form, long after the motor manifestations have disappeared.

The writer reports gratifying results in selected cases. Where there is distinct mental deficiency, so that it is difficult to hold the patient's attention and when the co-operation of the parents cannot be obtained, the treatment is extremely difficult. It requires perseverance on the part of the patient, parent, and physician.—*Arch. of Ped.*, June, '06, pg. 426.



## OPHTHALMOLOGY

Conducted by

W. R. PARKER, M. D.

**Concerning the Signs in the Retina of Persistent High Arterial Tension and Their Diagnostic and Prognostic Import** (Continued from November issue).—Intestinal irregularities, especially constipation, may play a part in certain cases of irido-cyclitis following operation; and ELSCHNIG believes that an attack of glaucoma may occasionally be determined by digestive disturbance, either reflexly, or by the absorption of toxins. He thinks it probable that gastro-intestinal intoxication may be the causative factor in many chronic choroidal affections, though he has not any evidence on the point to offer; while with regard to cataract he has somewhat more definite ground in the fact that tetany is recognized as an element in the production of a certain form of cataract, and that tetany in children is, as a rule, accompanied by increased indican reaction in the urine. Finally he refers to recurrent styes as a slight but troublesome affection in which in some cases no local treatment will prevent the attacks, but the discovery of a high indican content in the urine will point the way to a treatment of the digestive organs which will have the desired effect.

In a few words at the conclusion of his paper ELSCHNIG indicates the methods of treatment which he finds best fitted to bring his views on etiology to practical issue. In cases with an acute onset calomel (the disinfectant of the digestive tract) is the sovereign remedy. In the chronic, creeping affections treatment must vary according to the condition of the urine, of the digestion, and of the general health. In most cases, in the absence of any severe disease of the digestive organs, it is advisable to begin with an exclusively milk diet for several weeks, and then to allow a more mixed dietary in which milk still forms a preponderating element, or a diet such as that prescribed for the gouty diathesis. In the relapsing affections, in progressive scleritis and irido-cyclitis, a course of disinfection of the intestine by guaiacol carbonate ( $7\frac{1}{2}$  grains three or

four times a day after food) for four or six weeks several times a year, and finally supplemented by a Carlsbad cure, seems the best treatment. But in these cases, even though our view of their causation be correct and our treatment carefully carried out, we must not always expect to be rewarded by complete success, for the most experienced clinician will admit that the entire elimination of decomposition products from the digestive canal is not always within our reach.—*Ophthalmic Record*, August, 1906.

**Contribution to the Clinical Picture of Embolism of the Central Retinal Artery, with Remarks on the Course of the Macular Fibers in the Optic Nerve.**—A man, aged 40, who had had ulcerous endocarditis and was still suffering from mitral stenosis, suddenly lost his speech and the sight of left eye, with the typical picture of embolism of the central retinal artery. Between the hazy disc and the dark red fovea there was a rhomboidal, well-defined, normal area of retina, with a normally filled, small blood vessel coursing from the disc to the macula. V. equals fingers at  $\frac{1}{3}$  meter eccentrically. After a month the optic disc was atrophic. Toward the nasal side an oval-shaped area of 15 degrees, and 10 degrees of the visual field was preserved. The patient died two months later and Velhagen examined the eyeball anatomically. At the entrance of the intervaginal space an embolus was found in the central artery. The optic nerve showed secondary centripetal degeneration. Only a peripheral sector at the temporal side was intact, representing the papillo-macular fibers which had provided the preserved area of the retina. VELHAGEN concludes from his positive pictures, which certainly did not contain the macular fibers, that, behind the eyeball these probably run in the apex of the temporal sector, close to the central vessels, not peripherally, as generally stated.—*Klin. Mon. f. Augenheilkunde*, No. 11, p. 440.

## ORTHOPEDIC SURGERY

Conducted by

WILLIAM E. BLODGETT, M. D.

**Bone Metastases of Hypernephroma.**—SCUDDER reports a case of tumor of the humerus which was believed to be sarcoma. Amputation was done, and the growth upon microscopic examination found to be suggestive of hypernephroma. Then the left kidney was found to be enlarged, although the urine was normal. No other metastases were discovered. The patient was living and in about his usual health one year after the operation. Scudder refers to fourteen other cases of bone metastases from hypernephroma situated as follows: calvarium, 4; femur, 3; humerus, 2; clavicle, 2; tibia, rib and knee, each 1. The metastases may be multiple and involve all parts of the body, or the metastases may be only osseous, multiple or single. All of the fourteen patients died. The cardinal signs of the original hypernephroma are hematuria, renal colic, and renal tumor, but the original kidney lesion may be small and give no signs at all, while the bone metastasis may be threatening. If the metastasis observed is the only metastasis, nephrectomy also is indicated.

"The practical suggestions from this review of the metastases of the hypernephroma are: A bone metastasis may be the first sign of a hypernephroma. A bone tumor in a middle-aged or elderly person should suggest a metastatic hypernephroma, for a primary bone tumor in elderly people is uncommon. The bone metastasis from a hypernephroma may be the only metastasis. A hypernephroma may exist without symptoms for a considerable period. The kidney region should be palpated with great care in every case of tumor of bone."—*Annals of Surgery*, Dec., 1906, XLIV., 6, p. 851.

**A Method of Drainage of the Ankle Joint.**—

BOLTON shows that the ankle joint is divided into an anterior and posterior compartment by the closely approximated articulating bones, and that drainage is further interfered with by the cramping tendons about the joint.

"It seems necessary in order to drain the joint with anything like sufficiency that space would have to be provided that would allow access to both sacs to clean them, in which to place suitable drains and through which exudate could be discharged. These conditions can best be complied with by the removal of the astragalus; for with this bone out of the way both sacs become easily accessible and there is ample room for the drains themselves and for counter openings. Finally

the resultant state is certainly as good if not better than where, even if the leg is saved, a stiff and tender ankle is obtained."

The astragalus is excised through an anterior incision parallel and external to the extensor tendon. The cavity is packed with gauze. Counter openings can be made on either side of the tendon Achilles. The leg and foot are held in a gutter splint. The first dressing is made the fourth or fifth day, and then every third day.

"The final result shows an ankle in which there is slight motion, the foot at right angles to the leg and the distance from the knee to the under surface of the heel shortened about  $\frac{3}{8}$  to  $\frac{1}{2}$  inch. Since adopting this method I have not seen a cellulitis of the leg develop and I have not been compelled to amputate in a single instance."—*Annals of Surgery*, Oct., 1906, XLIV., 4, p. 595.

**Joint Affections of Hemophilia.**—SHELDON says that the importance of diagnosing these joint affections can not be overestimated. KONIG has divided the symptoms of these cases into three stages: 1. Those in which intra-articular hemorrhage is the only change; 2, after repeated hemorrhages have resulted in marked articular and periarticular changes, and have limited joint motion, and, 3, when the process has resulted in ankylosis. The early symptoms are the most important. In the primary attack, the joint, with or without the history of a slight injury, suddenly becomes painful, swollen, hyperemic and tender. There is extreme pain, but not marked tenderness. There is evidence of fluid in the joint cavity. As a rule there is a rise of temperature. The symptoms subside in about a week, only to recur again. The joint should be aspirated by a small needle. Nothing can be done for the old cases.—*Medical Record*, Oct. 27, '06.

**The Action of Salicylates in Acute Rheumatism.**—STOCKMAN advocates the use of 15 or 20 grains of sodium salicylate every three or four hours, or for the first twelve or twenty-four hours similar amounts or more every two hours. The author explains the decreased efficiency of the drug on valvular and periarticular lesions, as compared with the early lesions that are confined to the synovial joint-cavities, by the excretion of the salicylate into the synovial sacs, so that the strength of solution of the drug in the joints is greater than that in the blood serum. It is only to the weaker solution in the blood serum that the later extra-articular infections are exposed.—*British Med. Jour.*, Nov. 24, '06, No. 2395, p. 1439.

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## Original Articles

### CHRONIC MIDDLE EAR SUPPURATION AND SURGICAL INTERFERENCE\*

EMIL AMBERG, M. D.,

Detroit.

The remedial agencies employed by the specialist of today will be understood and used more or less by the general practitioner of tomorrow. Some facts in medicine, however, penetrate only slowly into the greater body of practitioners and of the laity. A quarter of a century was needed for the dissemination of the all-important knowledge of tuberculosis, so we can understand that less general and less easily comprehensible subjects must wait longer. This psychological fact furnishes the excuse for again touching a subject which may be quite familiar to many. The matter under consideration is a rather great one, and I should like to confine myself to dwelling upon a few questions which the general practitioner is justified in asking:

1. Does a chronic middle ear suppuration endanger the health and the life of a patient?
2. Can a chronic middle ear suppuration be cured?
3. Is it necessary to resort to a capital operation in order to cure a chronic middle ear suppuration?

4. Does the function of the ear suffer in consequence of a capital operation?

5. How much time is consumed by the after-treatment of the total opening of the middle ear cavities?

Questions one and two need not be dwelt upon any longer before physicians, with the proviso, however, that there seem to exist some cases in which a perfect cure cannot be obtained. All text-books treat the subject. Of the 14,381 patients who died in the Obachow hospital, in St. Petersburg, in seventeen and one-half years, one out of every 103 died in consequence of a suppurative otitis media. (N. Wesselowsorow) (Pitt 1:158, Gruber 1:232) (Archiv fuer Ohrenheilkunde vol. 68, p. 147.)

Question 3. This question is, of course, a very important one, and we must say that it depends entirely upon the type of case we are confronted with. The avenues of propagation from the middle ear are numerous, and it appears to us that we cannot say with certainty how a given case may terminate.

Politzer sums the subject up by saying: (1901, pp. 445 and 446) "In conclusion we may dwell upon the question whether it is permissible to perform the

\*Read at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906, and approved for publication by the Publication Committee.



radical operation for the cure of obstinate, uncomplicated middle ear suppurations to such an extent as it is done by a number of specialists. Those who take this radical standpoint refer to the deep seated changes in the antrum, and in the mastoid process, which is chronic middle ear suppurations take a course without showing any symptoms and which cannot be demonstrated clinically. On account of the favorable prognosis which is furnished by the early operation, we should not wait for the appearance of dangerous symptoms, because the latter make the prognosis of the result after operation less favorable."

"Contrary to this, I should like to emphasize that in numerous cases middle ear suppurations can exist for decades, even during a long life, without complications, and that we frequently succeed in curing without radical operation a chronic middle ear suppuration by determined local treatment. Granulations and polyps must be removed from the tympanic cavity and the attic, rough particles of bone must be scraped, on the outer wall of the attic, the hammer and anvil must be removed."

W. Sohier Bryant (Treatment of Chronic Purulent Otitis Media, with Illustrative Cases; the *International Journal of Surgery*, May, 1905) says: "We shall discuss only those cases which, though caries may sometimes be present, offer hope of at least as rapid a convalescence or a more satisfactory result with the milder measures than if more radical means were used. In their treatment, the first step is the removal of all fetid detritus, epithelium and retained secretions. Next, the granulations or polypi are removed, and free drainage is established. The first cleansing is assisted by the ear syringe and solutions of bicarbonate of soda. The ear is then dried with cotton. After this treatment caries usually disappear rapidly. When the perforations are not sufficiently large to

admit a free flow of the cleansing fluid the middle ear syringe is used or the perforations are enlarged with a knife. In some cases I have found cupping very serviceable."

"At first the patient should be seen every day. On the second visit, if fetor is present, and if granulations have reformed, the cleaning should be repeated as before, the tympanum dried with cotton, and an alcoholic solution of boric acid instilled. If, after the first visit, caries appears to be the cause of the fetor, the spot is wiped with a ten to twenty per cent. solution of nitrate of silver. A rapid disappearance of the caries may still be expected."

"Conclusion: From the foregoing cases we are justified in believing that if careful manipulation is combined with cleanliness, even in the most obstinate cases there still appears to be hope of effecting a cure in chronic purulent otitis media without a capital operation."

Milton J. Ballin (Ossiculectomy Under Local Anesthesia in the Treatment of Chronic Suppurative Otitis Media; *New York Medical Journal* and *Philadelphia Medical Journal*, February 17, 1906), comes to the following conclusion: "It frequently happens with any new operative measure that it is liable to be carried to extremes, and as Politzer correctly states the suppuration does not always cease after the extraction of the hammer and incus, nevertheless, the writer advocates this painless method of ossiculectomy as a preliminary operation in every case of chronic suppuration of the middle ear in which medicaments of all kinds have proved of no avail after an honest trial, as we are often able by this means to bring about a cure of the otorrhœa, thereby sparing our patients the ordeal of being compelled to undergo a radical mastoid operation which is not always followed by the best results and is frequently accompanied by a protracted and painful after-treatment."

George L. Richards (The Non-Operative Treatment of Chronic Otitis Media Purulenta, With Special Reference to the cure of Pyokturia; The *Laryngoscope*, St. Louis, September, 1905), says: "The brilliant results obtained by radical surgery in cases of chronic purulent otitis media since the publication of Macewen's book, and the experience of aurists in general that most of the cases of brain abscess and sinus disease are the result of an old chronic otitis have led us to believe that nearly every case of chronic discharge of the ear is a submerging volcano and of constant potential danger to its owner. The result has been that practically every case of chronic discharge of the ear has had the question of a serious radical operation, either removal of the ossicles or of a radical mastoid, considered, provided he has come in contact with an aurist who has had any experience with these operations."

"While in no sense advising against such operations when they are urgently indicated, as a glance at my own publications on the subject will easily show, I am nevertheless convinced that there are a large number of cases of chronic otitis where operative interference is not imperatively demanded, and where the persistence, for a longer or shorter time, of milder measures will either achieve entire success or bring about a condition easily under the control of the aurist, and of more satisfaction to the patient than a brilliant operation. Especially is this the case if the chronic purulent discharge is not accompanied by marked caries or by constitutional symptoms, and if the function of audition is fairly good. Many such patients have very good hearing, bid fair to live out the balance of their days, and insist upon our trying some form of local treatment before they will even consider the question of an operation. When questioned as to the certainty of a cure after an

operative procedure, we have to admit that even the radical mastoid operation is not always certain to cure, usually requires a more or less prolonged period of after-treatment, and is sometimes followed by recurrence; that even the operation of ossiculectomy now and then makes the hearing worse and may have to be followed by the more radical operation in order to produce what may be called an absolute cure.

Dench: (The Radical Operation in Chronic Middle Ear Suppuration, *Archives of Otology*, February, 1905, page 15, et. seq.), states that during the eight years ending September 1st, 1902, 14,487 cases of chronic middle ear suppuration were treated in the New York Eye and Ear Infirmary, in 98 cases the radical operation was performed. He states that the shortest time in which a cavity has healed, under skin grafting, has been three and a half weeks; the longest about four months. Where the wound was allowed to heal by cicatrization, the shortest period of healing has been about eight or ten weeks, and the average period much longer than this. By simple operation of ossiculectomy and curetment, 53 out of 92 cases were cured, 25 improved, two did not improve, and in twelve the result was unknown.

In Halle *Archiv fuer Ohrenheilkunde*, Vol. 65, 1st and 2nd part), 450 chronic middle ear suppurations were treated from April 1, 1904, to March 31, 1905, and in about one-fifth of this number the radical operation was performed. Of course we must remember that Halle is one of the Meccas for obstinate cases.

In order to receive an expression in regard to the after-treatment after the total opening of the middle ear cavities, the following questions were sent to aurists of acknowledged experience and reputation in the United States:

1. What is, in your experience, approximately, the average duration of the after-treatment after the total opening of the middle ear cavities (rad-

ical operation) until epidermization has taken place?

2. How long, as a rule, do you wish to have the patient under continual, personal observation? (Not including occasional visits later on, at intervals.)

3. What is your experience in regard to the change in hearing after the operation? (In a general way.)

Some of the answers received by me are here-with reproduced more or less completely.

1. "Dr. F. A. 1. From 2 to 3 months. 2. For 6 months. 3. In a majority of cases it is either improved or unaffected.

2. "Dr. C. S. B. 1. One to two months. 2. Three months. Generally better; sometimes unchanged; deterioration rare."

3. "Dr. F. J. B. 1. Six weeks to 3 months. 2. Daily visits for six weeks at least. 3. Removal of ossicles of course causes deafness, but if cavity does not fill up with granular tissue, patient will still hear some, but just how much I can't say."

4. "Dr. T. P. B. 1. In a general way, I should say that from six to ten weeks would be a fair average time for a complete recovery to take place in the average cases under my care, although I have been fortunate enough to see complete healing take place in three weeks after a very radical Schwartze-Stacke operation. On the other hand, I have seen apparently favorable cases take nine months to a year. 3. In my experience, hearing is quite frequently bettered after operation; although, of course, this depends entirely on the conditions found in the middle ear at the time of operation. If there is much granulation tissue in the middle ear I look for an improvement."

5. "Dr. W. S. B. 1. Three to eight weeks; average four weeks. 8. Until epidermization has taken place. 3. Usually marked improvement, none diminished."

6. "Dr. W. P. E. 1. From three to six months. 2. For the same period. 3. In the vast majority of cases the hearing is much poorer after the operation. In a comparatively small percentage of the cases the hearing is the same, while in a very few cases the hearing has been slightly improved."

7. "Dr. P. F. The average length of time after the radical operation until epidermization has taken place is three to five weeks, but there is a good deal of variation depending on the general condition of the patient as well as on

other factors. The cavity seems to do as well under nitrate of silver in increasing concentration, or drying powders such as xeroform, as with grafts. I like to keep the patients under personal observation for, say, four weeks. The question of acuity of hearing, after operation, is another complicated one. Much depends upon the severity of the disease for which the extirpation of the mastoid was performed. In a general way, I should say that the operation has little effect on audition except in so far as the removal of debris, carious bone, polypi and so on from the tympanic cavity tends to improve hearing if anything."

8. "Dr. J. H. 1. As to your first question, I consider seven weeks an average duration of after treatment. Though I have repeatedly shown patients five weeks after operation with completely epidermized and dry cavities. 2. After that time I usually do not see them oftener than once or twice a month. 3. With one exception I always saw improvement of hearing, often to twice and three times the original distance. Of course, I am very conservative in the drum cavity, and have often preserved the mallet and anvil when these two ossicles were normal and the cavity well epidermized. In all those cases, when they showed trouble later on, it was not in the attic, but in the aditus ad antrum and the antrum. This experience coincides with the experience of other men across the ocean. I had repeatedly a chance to see patients who were operated on in Germany. One man from Halle, and at present one from Koenigsberg, who had both scales and granulations in the antrum and aditus.

"I operated as early as 1893 and 1894. That time, of course, with perpetual opening behind the ear and Thiersch's grafts and flaps from the scalp. Since 1898 I close the retroauricular opening and do the whole after-treatment through the wide opening in the concha. These results are only possible when I attend to every detail myself. When I leave anything to an interne I do not expect equally good results.

"We must never forget that the best we can do for the patients is to leave a large scar on poorly nourished, often nearly diseased, bone or dura and therefore I am not very liberal in my indications for radical operations. The best results we got there, where the operation really was not indicated, and other ways had given a better and quicker result."

9. "Dr. C. R. H. 1. Approximately the average duration of the after-treatment after the



total opening of the middle ear cavities until epidermization has taken place, is from six weeks to twelve months, varying of course with the extent of the operation that has been made necessary by the destructive process at work. 2. I wish to have the patient under my continual personal observation after operation for at least one month. 3. The change in hearing after the operation is usually for the better. Sometimes it is not improved, and very rarely it is made worse. This, of course, depends upon the amount of destruction that has taken place before the operation was begun."

10. "Dr. E. E. H. 1. Four to eight weeks. 2. At least three weeks. 3. Improved."

11. "Dr. F. L. J. 1. Months. I find often a slight discharge after many months. 2. Several months. 3. Little or none. Occasionally improvement."

12. "Dr. C. J. K. 1. Six months. 2. A year. 3. Nearly always made worse."

13. "Dr. H. K. 1. Daily dressings may be necessary for four weeks to four months, and longer. 2. The preservation of hearing is in a radical operation negative, that is, if the patient had hearing before the operation, he is likely to lose or weaken it. Life is higher than hearing. The surgeon should observe and treat the patient until a permanent status is established, otherwise he may be surprised by an intracranial complication which may become fatal in a short time."

14. "Dr. G. A. L. 1. Three to eight weeks, probably averaging about five or six weeks before complete epidermization takes place. I was rather surprised this winter to have one heal in about two days less than two weeks. This was in a child. I think, however, that the hospital cases are less rapid than private ones, although private ones are not very common. 2. About eight weeks. This depends a little on how soon the epithelium covers the groove between the promontory and the facial canal. This I try to leave free so that a tough skin will not cover it in. It seems to me that the hearing is better preserved if this is so left. 3. In old adults I have not been able to preserve any hearing so far, but up to middle age and in children the hearing is sometimes improved. In fact, it has been in one little girl where a double radical operation was done. I sent her to the ——— School to have the lip language taught while she yet had some hearing. She heard so well that they sent her to a regular school because they said she heard too well for their school. Her

mother states that she hears much better now than before the operation, and she can converse with her, probably with a slightly raised voice, with one whole room intervening. Some other children have retained serviceable hearing, but I have not any definite tests to give for the children, because they are so difficult to test, etc."

15. "Dr. R. L., Jr. 1. Ten weeks. 2. Until discharged cured. 3. Generally a further loss."

16. "C. H. M. 1. Eight to ten weeks. 2. Three months. 3. Occasionally a little worse; occasionally a little improved; as a rule, no change of any consequence."

17. "Dr. J. F. McK. 1. Seven weeks. 2. Ten weeks. 3. Diminished."

18. ("Name mislaid.") 1. Three months. 2. Till cured. 3. Usually stationary, or lowered."

19. "Dr. T. R. P. 1. Three to seven months. 2. Until all discharge has ceased. 3. In most of my cases it has been improved."

20. "Dr. N. H. P. 1. The duration of after-treatment in radical operations varies in direct ratio to the intelligence, carefulness and thoroughness of the after-treatment, provided the operation has been thorough, and that no tuberculosis or dyscrasia (diabetes, etc.) is present. The shortest time is six weeks; the longest three months, approximately of course. There have been cases that have taken much longer, that have required further operating, etc. But I have come to regard from six to twelve weeks as the normal duration of after-treatment. 2. The second question is answered, in part, by the first. After the ear becomes dry and thoroughly epidermized the patient is dismissed, with instructions to report if there is further discharge, or at least every six months or two years. When the former occurs it is usually found to come from the tube. I regard this as entirely separate and apart from any consideration regarding the radical operation. 3. Before operation I invariably have a thorough tuning fork (functional) test made of the patients to ascertain (a) whether there is stapes ankylosis; (b) whether there is labyrinthine involvement (capsule or nerve). In cases where these are found absent, the rule is that the hearing is improved temporarily or permanently, or unchanged."

21. "Dr. F. R. P. 1. After the radical operation I believe that the average duration of after-treatment in my cases has been approximately four weeks. Sometime ago I endeavored to ascertain somewhat definitely from my case records the duration of after-treatment, but I am

sorry to say the records were too ill kept to furnish definite data. 2. I keep patients in the ward or in their rooms for three weeks subsequent to operation, at least. This I make a practically invariable rule, as I have had several unfortunate experiences in cases whom I allowed to leave the hospital too early. 3. I do not believe any definite predication can be made before operation as to the effect the procedure will have on the hearing. I believe it is quite as often improved as diminished, and it quite as frequently remains unaltered."

22. "Dr. B. A. R. 1. Six to ten weeks. 2. Most of that time, as synechial growth or stenosis is possible throughout it. 3. No notable difference in most cases; loss in the minority, all probable gain having come during the previous treatment."

23. "Dr. J. M. R. 1. Three to six months. 2. Four months. 3. I have noticed very little."

24. "Dr. H. O. R. 1. Think the average would reach nearly three months. 2. In hospital two weeks; daily or bi-daily visits after this. 3. In some instances not affected, but about as often made worse."

25. "Dr. S. O. R. 1. One to six months. 2. A year at least, for a cure. 3. Depends on the case and what the operation involves."

26. "Dr. G. L. R. 1. Five to eight, or even ten weeks, depending on size cavity and amount of bone it was necessary to remove. 2. Until epidermization has taken place. 3. Improved usually, since these patients have very bad hearing when operated upon."

27. "Dr. C. W. R. 1. Average about eight weeks. 2. I do not wish to see them for a period longer than six months after the wound has completely epidermized. 3. In a general way I will say that the hearing is not appreciably altered after the operation."

28. "Dr. J. E. S. 1. The average duration of after-treatment in a very large percentage of the total is from six to eight weeks, there having been several finished up in from four and a half to five weeks, a few taking nine or ten weeks, but the great majority of them were discharged cured in seven weeks. I have two cases, one of which took sixteen weeks, and the other seven months, for a complete cure, and these I did not include in making my average duration. 2. I always wish to keep them under my "continued personal observation" until they are completely cured, because I think the after-treatment is quite as important in the effecting of a cure as is the operation itself. 3. As to No. 3, my experience is that in the great majority of cases the hearing remains practically unchanged."

29. "Dr. S. S. 1. The approximate average, allowing for unfavorable cases, should not in our

experience be placed at less than five or six months. 2. It is hardly possible to state a definite time. There is no iron-clad rule. After a cure seems complete the frequency of the visits should be gradually reduced. By the end of the sixth week after epidermization a patient is calling once every ten days or so. By the end of the fourth month we generally instruct the patient to call once every two or three months. This we keep up indefinitely. 3. Many cases remain little if any changed. If anything, more seemed to be benefited than really harmed, as regards the hearing. Some lose what hearing they have."

30. "Dr. F. W. 1. Four months. 2. Until epidermization is complete. 3. Usually somewhat reduced from acuteness preceding operation."

31. "Dr. H. W. Complete epidermization has taken place from three months to a year and a half. I believe, however, the process would have been completed sooner had I not over-treated the patients with too frequent dressings. In one case the hearing was improved so that telephone conversations could be carried on. The other cases were entirely deaf with loss of all forks below 512."

If we compile these statements in a table (see below), we find that the average duration of the immediate after-treatment is two months and 26 days.

			Average time
1....	2	to 3 months	2.50
2....	1	" 2 "	1.50
3....	1.50	" 3 "	2.27
4....	1.50	" 2.50 "	2.00
5....	0.75	" 2.00 "	1.37
6....	3.00	" 6.00 "	4.50
7....	0.75	" 1.25 "	1.00
8....	1.75	" 1.75 "	1.75
9....	1.50	" 12.00 "	6.75
10....	1.00	" 2.00 "	1.50
11....			
12....	1.00	" 4.00 "	2.50
13....	0.75	" 2.00 "	1.37
14....	2.50	" 2.50 "	2.50
15....	2.00	" 2.50 "	2.25
16....	1.75	" 1.75 "	1.75
17....	3.00	" 3.00 "	3.00
18....	3.00	" 7.00 "	5.00
19....	1.50	" 3.00 "	2.25
20....	1.00	" 1.00 "	1.00
21....	1.50	" 2.50 "	2.00
22....	3.00	" 6.00 "	4.50
23....	3.00	" 3.00 "	3.00
24....	1.25	" 2.50 "	1.87
25....	1.00	" 6.00 "	3.50
26....	2.00	" 2.00 "	2.00
27....	1.50	" 2.00 "	1.75
28....	5.50	" 5.50 "	5.50
29....	4.00	" 4.00 "	4.00
30....	3.00	" 15.00 "	9.00

Average, 2 months and 26 days... 83.86

## Conclusions.

1. Only exceptionally a chronic middle ear suppuration which does not respond to mild treatment without more thorough surgical interference, should be allowed to continue. The less radical procedures should first be considered and the more radical measures should not be delayed too long.

2. The mastering of the technic of treatment in its details is imperative.

3. The public and the profession in general have only begun to realize what can be done and what should be done in a chronic middle ear suppuration.

I express my obligation to all the gentlemen who have been kind enough to furnish me with the data quoted, and who thus enabled me to give a reliable picture of the subject matter, as it presents itself today in the United States.

## DISCUSSION.

**J. C. Huizinga**, Grand Rapids, said that he thought that mortality rate was slightly higher than stated. Attention to Eustachian tube in many cases of chronic otitis media will be of benefit.

**A. E. Bulson**, Jackson: If conservative measures are not curative in a reasonable time, radical operation is indicated. The profession is more alive to the importance of these affections than ever.

**Dr. Amberg**: An irregular, "steeplechase" temperature is suspicious of lateral sinus involvement. He does not by any means intend to give an impression of undue conservatism, but believes local treatment should be tried and is often curative. Radical operation is not done frequently enough in this part of the country. But all such surgical procedures require special skill, and should not be attempted without adequate training. The responsibility for a case begins when a diagnosis of otitis media is made.

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A COMPARISON OF THE OLD TIME AND THE MODERN PHYSICIAN\*

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C. L. GIRARD, M. D.,  
Escanaba.

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"Look here upon this picture and on this, the counterfeit presentment of two brothers."

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Once there was a man who enjoyed the respect, the confidence, and the affection of all in his community; their respect, on account of his blameless life and great usefulness; their confidence, on account of his knowledge and established discretion; their love, in consideration of his sympathetic heart and merciful deeds. High souled he was, and if some alloy was mixed with the

gold of his many virtues, one at least remained untainted, his admitted disinterestedness. This man was the family physician, and he held a high place of honor in his locality. Whether the medical profession in our own time presents the same aspect as in the foregoing picture, and whether the modern physician enjoys the same prestige as formerly, let the frequent articles on the subject in current medical literature, let the numerous complaints heard in private con-

\*Read at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906



versation and in the medical assemblies, give answer. Far from being optimistic in character, the note they generally sound is mournful in the extreme; "the passing of the general practitioner, the family physician a thing of the past," etc., is the burden of the clamor. This too despondent view proceeds, in my opinion, from insufficient consideration of the causes that led to the present state of affairs; these we shall study together and endeavor to draw from their careful analysis the remedies that may bring betterment, if not salvation.

Among the manifold causes that have brought the profession to its present unsatisfactory status, some came with the revolution of the wheel of time and were, partly at least, beyond control, while in most cases prudence and farsightedness might have availed much to properly direct the impelling forces and to mitigate their direful effects when the blow was inevitable.

The ignorance of the people a hundred or more years ago was profound and universal, and made them prone to see the marvelous in things which today would be playthings for children. So, when the old time physician, with his literary culture and scientific attainments, gave his advice and prescribed his treatment, his opinion and himself met with a respect and deference little short of the superstitious; whereas, today unkind criticism too often awaits him and his actions.

Perhaps one may ask, "Is the modern practitioner of less ability? Is his skill in his art inferior to his professional ancestors? Far from it. As a medical scientist and a surgeon he enormously outranks him. But these are attainments of which the public is no fit judge, and feeling that they are beyond its ken, it seeks in general knowledge and literary culture a criterion upon which to base its estimate of the modern healer. And we must admit that the people of

today have made some strides in culture and information. In fact, they have attained the critical age where "a little knowledge is a dangerous thing."

On the other hand, it must be also admitted that, from the second half of the last century up to the beginning of the present one, the forensic knowledge of the physician, I mean his general education and culture, has, compared with popular progress in the same, fallen far behind; and the estimate of his medical ability, as judged by his general knowledge, has proportionately declined. It is with a feeling of great encouragement that I have seen the general awakening of late in the several medical institutions, in exacting of their prospective alumni a higher standard of preliminary education, and I fondly hope that not only will it be adopted by all, but raised still higher. This farsighted policy can not but have the happiest effect in elevating the profession in the esteem of an hypercritical public.

The nihilism in therapeutics, openly avowed by the lights of the medical profession, has produced first, indifference, and afterwards neglect. At the same time the exuberance of chemical and pharmaceutical establishments, bolstered up by extremely clever advertising circulars edited by able medical assistants (if you please), has effected a dizzy muddle, from which the older practitioner turns away with disgust, and in which the fledgeling gets himself helplessly tangled. In fact, the mere reading of a moiety of the current literature upon the new pharmaceuticals would use up a life time. As a matter of course, these are either untried or insufficiently so, while they distract the energies of the profession from the study of a few really valuable products, whether of ancient or relatively modern origin. Hence, there is repeated disappointment in the treatment of disease and consequent encroachments of the

surgeon in the domain heretofore allotted to medicine. And again, by a just retribution, the measure meted out by the surgeon to the general practitioner has in turn been meted out to him by the specialist.

An earnest study of therapeutics, as founded upon serious physiological knowledge and the great principles of general pathology, is the remedy to be applied. Let the physician treat the condition of his patient, not the name of a disease. Eliminate a toxin, support a flagging heart, relieve an unobstructed circulation, promote or retard metabolism by well-known and long-tried agents, and do not neglect little means, and you shall prove yourself useful to your patients, and your usefulness will compel respect.

If competition is the life of trade, it also gives it a death blow when carried to excess, and this leads us to the consideration of our third point. Before medical institutions became so numerous, the number of medical practitioners was relatively small and by the law of supply and demand, their services were highly prized and remunerated accordingly. Hence, professional jealousy was limited generally to laudable rivalry for the attainment of fame, while today it has degenerated into a mortal strife for even the necessities of life. It has been estimated that it requires one thousand population to insure to a physician a decent living, yet in these United States the average is one physician to 700 or 800 population, and the number of yearly graduates goes on constantly increasing, thus forcing the overcrowding, in spite of the vacancies effected by death and other causes.

Happily, this disease seems, to a certain extent, to be self-limited. The medical institutions in their turn, feeling the baneful effects of excessive competition, have of late shown a tendency to amalgamate, which tendency ought to

be not only encouraged by the influence of a now well organized medical profession, but forcefully promoted by state, and even federal legislation. And this legislation can be obtained in due time if the appeal for it is firm, perseverent, unanimous, and, last but not least, explicit, I mean that in our petitions for legislation we should express exactly what we want, and all that we want. Weeding out all pretentious preambles such as, "to further elevate the level of the practice of medicine," "In view of the great benefit to accrue to the public," etc., etc. This verbiage is all cant, these benefits are incidental, but our opponents take advantage of this muddle of words to make confusion worse confounded, under the favor of which they manage to keep to themselves the kernel of the nut, leaving us only the shell. What we really want is effective protection against the various pretenders to the healing art. It is our due, and we need not be ashamed to claim it. In this also may be traced the origin of the multi-colored legislations that have sprung up, mushroom-like, in all the states of the Union, imprisoning the physician within one state, limiting his opportunities and aspirations, and robbing him of his ancient and dearly prized privilege of being every where welcomed as a citizen of the world.

Of so-called commercialism in medicine, I recognize but one instance worthy to be mentioned—advertising in its different forms, savoring of charlatanism, whereas the selling for profit of medical and surgical devices comes more properly under the head of graft, for the merchant takes his profit openly, as befits a recognized agent in the distribution of wealth. Other forms of graft are the accepting of percentages on prescriptions, and the dividing of surgical fees. The latter, indeed, has found defenders among physicians with reputation for integrity, but they forget that

the patient has to foot the bill (including, of course, the codicil). In my estimation, all that is clandestine ought to be shunned by the physician, for, if detected by his patrons, it will lose him their respect and their confidence forever. I am well aware that this rigidity of principle will keep the family physician in reduced circumstances, but such is the price he has to pay for the honor of his grey hairs.

And now I have come to a most important, but at the same time a very difficult subject. I mean underbidding, one of the direst effects of extreme competition and that which comes closest to real commercialism. Considered in the abstract, there is no price set upon health and life, and originally the disciples of Hippocrates received no stipulated fees, but only gifts, later called honoraries, in value more according to the means of the giver than to the extent of the services rendered. But in this iron age, when all is measured by the weight of the dollar, if our remuneration should be left to the discretion of our clients, and estimated according to their gratitude, our fate would be sad indeed. Hence, there is a necessity for setting a uniform price for certain specific services, formerly regulated by custom and tacit agreement, but latterly, by written agreement, determined in medical assemblies, and generally recognized by law. How it may be possible that intelligent men should adopt the silly policy of breaking such agreements in the hope of increasing their patronage has always been a mystery to me.

Suppose that in a community one physician cuts the fees by half, and that the others in self-defense, meet his reduction. He not only fails to secure the coveted increase in the number of clients, but has reduced by half the revenues of the whole profession in that locality, including himself, of course. And if they refuse to abase themselves and belittle

their services, he will lose the consideration of both the profession and the laity; for the latter will infallibly regard him in the same light that his brother physicians do. There are, indeed, some who endeavor to do these things in secret. These are the more despicable, but both belong to that class which, owing to some deficiency in skill or morals, either congenital or acquired, cannot otherwise obtain a decent livelihood. There is unfortunately no means of retaliating against these individuals; all we can do is to break all intercourse with them and leave them to hunt after their lost self-respect, if they ever possessed such a thing. Nevertheless, the influence of these pariahs of the profession is disastrous to its welfare and is the direct cause of the haggling over prices which is so humiliating to the finer instincts of the honorable physician.

In approaching the next item I am going to tread on sacred ground. There are several methods of treating the same disease which may achieve equal success. Of these, the costlier and more showy seem of late to have displaced the older ones with a majority of the profession; the conservative minority qualify these as fads, but I am afraid that the public puts a worse interpretation upon it, and attributes it to grab, if not altogether to graft. So at least has it come to my ears, and the same cutting remarks have been passed upon promiscuous surgery. On the other hand, the majority superciliously snub the conservative element, and characterize as foggy whoever does not step into the band wagon or at least does not bark closely behind. What do you think is the attitude of the public in this instance? Respect? Confidence? No! It is indeed immensely amused by the verdict of fogysm pronounced upon one party by the other, but it has a verdict of its own for the snubbers, one very well expressed in the following yarn: "Yes,



indeed," quoth the elder physician to his younger brother, "I have made mistakes in my time, one of which has robbed me of a cool thousand. An old codger, not over well dressed, consulted me about some ailment which I pooh-poohed as a little stomach ache, charging him \$2.00 for advice, when I subsequently found out that he was a miserly old millionaire, rich enough to have appendicitis." The moral is obvious.

As an antithesis to the costly treatment, may be set up the cheap contract practice, which, of all causes but one, has done the most to bring the medical profession in deep discredit, for it puts the wage-drawing physician about three pegs below the merchant, and hardly on a level with skilled labor. Do not wonder at hungry Esau selling his birth-right for a dish of lentils; he at least sold what was strictly his property, but the lodge physician is disposing of what is really the joint property of all the other physicians. He becomes the cat's paw of a few schemers, who under a certain patronizing air, feel for him only utter contempt, and if in retaliation his fellow practitioners imitate him to the best of their ability, what must ensue but the ruin of independent practice in that locality, and their subsequent enslavement? And they are unpitied, because nothing but the greed of the victims, their mean jealousies and moral cowardice could have forged the chains that bind them.

When the young maiden pours her confession in the ears of her spiritual director, she first delivers herself of her small fry, allowing him time to get hardened by a sort of seasoning process before she comes to her enormities. I have imitated her in keeping for the last what I call the pet sin of the profession; one which, in my opinion, has caused more harm than all the others put together, and as the first honors belong to the first of men, I shall begin

with the lights of the profession. The way some of them express their views about the obscure country practitioner, who in the innocence of his heart has sent a patient to his quondam tutor for comfort and advice, is sometimes shameful. I remember, when a student, I heard some sarcastic remarks about the diagnosis of a former pupil who had sent him a patient for treatment. My lack of appreciation of the joke was noticed and commented upon, to which I bluntly retorted that, "as the next boil might alight on my own neck, I might be excused if I felt a little glum by anticipation." The solemn medical assemblies, the text books, the current literature, are full of this spirit of criticism, coming from the high places to land on the shoulders of the general practitioner. But to abandon details, the specialist disparages the surgeon, and both the surgeon and the specialist disparage the family physician, exchanging also unkind comments upon each other's methods; with such edifying examples before their eyes, what do you think is the conduct of the common, every day practitioner? The merry show is not always conducted in plain words; a look, a gesture, an adroit reticence sometimes; a man may even be damned with fulsome praise and a scientific knocker is past master in all these methods. "What shall the harvest be?" The immortal Moliere shall answer you. The scene is a medical consultation in the parlor of a well-to-do bourgeois of Paris:

The Father—Gentlemen, my daughter is breathing harder! pray tell me quick the result of your consultation.

Dr. Tomes—Sir, we have argued thoroughly about the disease of your daughter and my personal opinion is that it proceeds from a great heat of the blood, so I advise that she be bled as soon as possible.

Dr. Desfonandres—As 'for me, I claim that her disease comes from a foulness

of humors produced by too great repletion, so I opine to administer to her an emetic.

Dr. Tomes—I hold that the emetic will kill her.

Dr. Desf.—And I, that the bleeding shall be the death of her.

Dr. Tomes—It becomes you well, indeed, to pose as a clever man.

Dr. Desf.—Indeed, it becomes me and you can't hold a candle to me for universal erudition.

Dr. Tomes—Remember the man who croaked in your hands last week.

Dr. Desf.—Bear in mind the lady that you sent to the happy hunting grounds only three days ago.

Dr. Tomes (to the father)—I have told you my advice.

Dr. Desf.—I have delivered to you my opinion.

Dr. Tomes—If you have not your daughter bled presently she is a dead girl. (Exit.)

Dr. Desf.—If you have her bled she will not be alive fifteen minutes after. (Exit.)

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The temptation should not be yielded to to incise a psoas, hip or other "cold" abscess, except in isolated instances and then only under the most rigid asepsis. The production of a mixed infection means chronic sinus, chronic invalidism and, often, amyloid disease.

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In the early months of pregnancy examinations should be made to determine that there is no retroversion or to treat it if it exists. A retroverted gravid uterus impacted in the curve of the sacrum always aborts.

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Before operating for pharyngeal adenoids or hypertrophied tonsils make sure that these are not merely an expression of status lymphaticus. If they are, do not employ an anesthetic. Also determine whether the patient is hemophiliac. If he is do not operate at all.

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When applying a plaster dressing to the leg always include the foot if the patient is to be confined to bed; otherwise "drop foot" will develop.

The Father (alone)—There, now! I am a deal more perplexed than before. By jove! I have a notion. I'll get her a bottle of Peruna. I have heard lots of people praise it.

Once more the moral is obvious—the patent medicine, the quack, faith cure and all the "isms" treading on the heels of our quarrels.

Thus discoursing about the old-time family physician and his envied prestige in comparison with the modern, and his greatly dimmed glory, we have found that, since many of the causes for the change lie in himself, he may hope by a thorough conversion, to recover his past lustre. Barring the acquisition of wealth, which modern competition has made impossible, except for the man of transcendent ability, he may by imitating the old physician's blameless life, his usefulness, his discretion, general knowledge, and disinterestedness, come again into his inheritance of respect, confidence and love, which after all, are the only rewards acceptable to the high-born soul.

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In dealing with infections or injuries of the fingers amputation should be a *dernier resort*. This is especially the case with a thumb, the most important of all the fingers.

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Surgical tuberculosis, no less than pulmonary tuberculosis, calls for the most careful general treatment, post-operative and otherwise.

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Individuals with bluish sclerotics, and with dark lanugo over the upper part of the back are usually of tuberculosis diathesis; and these signs are not inconsequential in making a diagnosis.

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In excising a varicocele under local anesthesia, tie the upper ligature first; the pain of tying the lower ligature will then be abolished.

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When operating for empyema thoracis it is a good rule to aspirate again when the pleura is exposed and before it is incised. This may save some embarrassment.

RELATION BETWEEN ANEMIA AND EARLY STAGES OF TUBERCULOSIS, WITH REFERENCE TO TREATMENT BY HYPODERMIC MEDICATION\*

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B. R. SHURLY, M. D.

Detroit.

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Until a specific is obtained, the life of the tuberculous individual depends on early diagnosis and early treatment. A vast number of those infected with the pulmonary form pass through a so-called pretubercular or latent period. There is no tuberculosis without the tubercle bacilli, yet if we postpone our most strenuous efforts until the microscope reveals the lesions, the fight is beyond us. It is the cases of latent unrecognized tuberculosis with their peculiar interference of proper cell metabolism that demand more of our attention. There is frequently a prolonged prodromal period of impaired general condition that is marked by a well observed disturbance of the usual ratio between the body weight in pounds and the height in feet. A progressive loss in weight follows. The external chest conditions, such as conformation, a limited expansion or capacity, may indicate the imperfect use of the pulmonary cells. The character of the pulse may give us additional evidence, such as acceleration with a relative decrease of arterial pressure. Lymphatism, with decidedly pathological tonsils, adenoids, and cervical glands, frequently exists. Will power replaces automatic power. Subjective symptoms become prominent—such as general malaise, failing digestion, weakness in the knees, and a slightly increased respiration. Where this prodromal period exists a varying degree of chloroanemia is frequently present. It is extremely marked in some cases, and the diagnosis is difficult in others.

The treatment of these anemias in associated or suspected tuberculosis is the direct subject of this paper. Medical literature provides us with many varieties of opinions upon the relations of chloroanemia and tuberculosis. It is agreed that so-called pretubercular conditions are generally attended by a diminution of haemoglobin and this is all out of proportion to the loss in red cells. Henocque characterizes tubercular chloroanemias by a diminished supply of oxyhaemoglobin. Incipient phthisis is usually marked by a slight leucocytosis, a slight reduction of red blood corpuscles, and a moderate fall in haemoglobin. Twenty-nine per cent, according to Laache, of tubercular chloroanemias in the early states show a diminished haemoglobin. Labbe regards chlorosis as a frequent first manifestation of a latent tuberculosis. Bramwell states that it is quite agreed that in families predisposed to tuberculosis, a stronger tendency to chlorosis exists. In his series of seventy-two cases of chlorosis, thirty per cent showed definitely a tubercular family history.

It is extremely important that we should thoroughly examine and seriously treat all initial evidence of a slumbering tuberculosis. A number of patients suffering from various forms of anemias, with or without lymphatism, have come under my observation during the last two years, who have been treated with hypodermic medication of iron, arsenic, lecithin, sodium glycerophosphate, iodine, or guaiacol, in such combinations as the indications seemed to demand.

Rynd, in 1845, published in the Dub-

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\*Read before the Delta County Medical Society, Dec. 14, 1906.



lin Medical Press, the first report of medication administered under the skin. In 1850 Pravaz invented his well-known syringe that brought the hypodermic method into more general use. During the succeeding years, until 1880, only morphine and atropine seem to have had general recognition among the profession throughout the world. Roussel, of Paris, took up the work and added many new medicaments adapted to the subcutaneous method. The Bulletins of the French Society report the use of hypodermics of arsenic in 1883; antipyrine in 1884; salicylate of iron, arseniate of strychnine in 1886, and cyanide of mercury in 1880. During the next decade numerous articles appeared in the French and Italian literature, and the treatment has been generally accepted for more than fifteen years as exceedingly valuable, especially where iron or arsenic is indicated. I am unable to find a single article written in English with details upon this treatment. The therapeutic nihilist of the deepest dye admits without argument that iron, arsenic, and phosphorus have a wide field of usefulness.

When these valuable drugs are introduced hypodermically into the body through the lymphatic or capillary blood systems, the effects are more pronounced, more rapid, and quite as permanent as when administered by mouth. We know that the 38-45 grains of iron that are found in the human body are for the most part in complex chemical combination with the haemoglobin. This haemoglobin, it was formerly claimed, required organic iron in its formation, and this idea prevails in the profession today, kindly and continuously nurtured by the enterprising firms who manufacture it in fancy forms. Whatever argument may be advanced in favor of organic iron by the stomach, I am confident that the ammoniated citrate or the arseniate of iron injected hypodermic-

ally in sufficient dosage will absolutely produce complete recovery from the pathologic blood conditions known as chlorosis, and that it will be found exceedingly efficient in many cases of secondary anemia. (See report of cases.)

It is estimated that the daily average of 100 milligrams or 1-6 grain of iron is required by the average individual, while many require only 6 milligrams per diem. It is generally conceded by physiological chemists that if inorganic iron is not rapidly assimilated it stimulates the iron producing function. It is therefore probable that the hypodermic method with the use of highly soluble forms of iron supplies directly both stimulation and iron to the deficient cells. Wherever iron is indicated, it may be given hypodermically in the form of the green ammoniated citrate or the arseniate of iron. Arsenic is best administered as Fowler's solution of the arseniate or the meta-arseniate of soda. These solutions may be combined, with or without the addition of glycerophosphates of sodium or calcium. Strychnine also may be used in combination with advantage. A valuable formula in chlorosis is citrate of iron, 0.05 grams; meta arseniate of soda, 0.01 grams; glycerophosphate of soda, 0.2 grams; strychnine sulphate, 0.001 grams.

The French glass, 30 minim syringe of Luer, with its needle of good caliber, is very useful in this treatment. It is easily sterilized with hot water and quite durable, and it is not subject to the corrosive action of the metals. A needle kept in a glass jar or box for each individual removes any danger of infection. The injections are made into the deep cellular or muscular tissues of the buttocks or back. The stronger iron solutions are slightly painful. Chloroform or ether may be applied to the site of the puncture, if necessary. A blood examination should be made at the com-

mencement and the completion of treatment. With a full dosage given daily an increase of ten per cent in haemoglobin can be expected each week.

The green ammonio-citrate of iron has been used in the arts in this country to some extent, but not medicinally. It can be introduced into the system without danger in doses from 3-4 of a grain or .05 of a gram to 11-2 grains, or .1 gram daily. It is extremely soluble in water and can readily be taken up by the lymphatics and capillaries. The solution for hypodermic use must be sterilized and supplied in hermetically sealed bulbs, each containing one dose for immediate use. The splendid Italian product is preserved in cherry laurel water and imported in small white glass bulbs. Any cloudiness in the solution can be detected easily. After the patient is prepared, the slender neck of the bulb is broken, the sterile needle of our sterilized syringe is thrust into the bulb, which bulb is turned bottom side uppermost. The liquid can be then quickly drawn into the syringe.

A full dose of iron by the hypodermic method shows a reaction in from five to twenty minutes. The superficial capillaries dilate and a feeling of tension in the head is noted. Tingling sensations in the hands and feet or over the entire body may be detected. The pulse accelerates, the face is flushed, and a general feeling of well-being supervenes. In susceptible individuals or when a considerable over-dose is given, a wave of nausea follows, which may persist as continuous nausea for some hours. More than one and a half grains at a dose usually produces sudden vomiting within twenty minutes. From two and a half to five grains may produce several attacks of vomiting with great prostration for some hours. Treatment in the proper manner obviates all possibility of disturbing digestion. The teeth are preserved and no constipation results.

We recognize fresh air and forced feeding as our two sheet anchors in the treatment of tuberculosis, yet how few of our consumptives today reach the later stages of that disease without a course of creosote or its compounds in doses that have impaired the entire digestive apparatus? The conditions of the stomach will decide frequently the prognosis of our case, and tonic or palliative treatment that can be introduced hypodermically preserves the digestive tract for its proper functions. Drugs that impair digestion should be avoided.

The therapy of iron and arsenic is too well known to occupy the time of this society in argument as to the usefulness of these remedies. It suffices to say that the results of hypodermic medication will speak for themselves, if you will make the trial in well indicated cases. In the treatment of anemias associated with early tuberculosis, we can remember that we need not fear a localized tuberculosis as long as fresh air, good food and reconstructives or tonics maintain a general nutrition that will preserve the cell resistance of the pulmonary gland tissues.

### Conclusions.

First—This method affords a rapid, safe and certain therapy, especially where iron, arsenic, phosphorus, or iodine is indicated. It does not interfere with other plans of treatment by mouth.

Second—Chlorosis will respond rapidly to this method alone.

Third—We can avoid gastro-intestinal irritation, constipation, injury to the teeth, and imperfect assimilation.

Fourth—Drugs that impair digestion should be avoided in tubercular anemias.

Fifth—We are certain that the patient receives the medicine in the dosage we desire.

Sixth—The anemic patient is continuously under observation, as an average of thirty daily punctures is required,

and a definite diagnosis of suspected tuberculosis or other conditions can then be made.

Seventh—Solutions of iron introduced into the subcutaneous cellular tissue in over-doses of one and a half grains will produce nausea or vomiting within twenty minutes.

Eighth—The hypodermic use of iron and arsenic is a well established and successful method of treatment that deserves recognition in this country.

### DISCUSSION.

**Dr. H. J. Hartz**, Detroit: The method as announced by Dr. Shurly is one requiring expert knowledge in its successful administration, and not easily carried out by the general practitioner. There are always certain dangers in the direct inoculation of drugs into the blood, and Dr. Hartz said that he would wish to avail himself of the screening action of the liver, in the administration of iron salts.

**Dr. W. E. Coates**, Manistee, confessed being a therapeutic nihilist. In regard to the efficacy of hypodermic medication he thought all workers in sanatoria were unanimous in the belief that medicinal methods were of very little use except in emergencies. Over-dosing is a frequent cause of impaired digestion. Dr. Coates questioned the use of the term chlorosis in this form of anemia. Chlorosis is probably a specific disease, although it may be associated with tuberculosis in its early stage. The usual anemia is a secondary change. He believes in fresh air treatment in all cases and thinks that just as much could have been accomplished for Dr. Shurly's patients by these means.

**Dr. E. L. Shurly**, Detroit, said that it is the great tendency of nature to heal disease, so that the results regarding any one method of treatment are apt to be fallacious. He had personally found the hypodermic method of medication a very valuable help in treating tuberculosis. He

had given a varied list of drugs in this way.

**Dr. George Dock**, Ann Arbor, said that the paper was interesting because it called attention to an exact method of treatment. He objected to the reintroduction of the discarded term "pre-tubercular," which means simply pre-sputum stage.

The tuberculous subject is very often anemic, this anemia frequently appearing before evidence of physical signs and sputum. There is a peculiar pallor about many of these patients. The hemoglobin may test 80 per cent when the patient looks quite as pale as a pernicious anemia patient with 30 per cent to 40 per cent hemoglobin. One must first make certain of the condition of the blood before drawing conclusions.

The anemia is usually secondary. It is very erroneous to consider the condition chlorosis.

The tuberculous patient may look pale and not need treatment for that condition. The cases with most marked anemia may not need iron. Fresh air and diet is usually sufficient. There is no doubt but that in certain cases iron is very useful. Taken internally it can be absorbed if given in the proper form.

The advantage of the hypodermic method is its accuracy and the chance for observation of the patient. There is no reason why iron should not be given in this way except that it is not necessary. Iron and arsenic can both be given satisfactorily by the mouth.

**Dr. B. R. Shurly**, Detroit, in closing said that the danger of infection was no greater than in giving morphine hypodermically.

The advantages were the more definite dosage and prevention of irritation to the stomach. Many preparations of iron are inert, and it is always a question of how much is absorbed, unless the preparation is quite fresh. Dr. Shurly has had a number of cases in his practice who could not take iron by mouth without upsetting the stomach. In these cases, where there is chlorosis, the hypodermic method of administering iron is very valuable, such cases improving rapidly under the treatment. Dr. Shurly would not do away with other methods of treatment. Hypodermic medication does not interfere with them.



## HERNIA\*

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H. A. HAYNES, M. D.Physician to the Michigan Reformatory, Ionia.

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The subject of hernia is so very large that it is impossible to describe any of its many subdivisions in one paper, and although I submit *Hernia* as my subject, I intend to touch only upon that portion with which I have come in personal contact. My experience has been very limited, yet during hospital service, and during my term as physician at the Michigan Reformatory, I have had some opportunity to study daily a number of individual cases for extended periods of time, and it is my personal observation of these cases which I will present to you. I shall confine myself to the subject as I know it in penal practice, concerning its positive influence on the nervous system, especially in those who are mentally deficient.

In a table of percentages of the various kinds of hernia, Eccles gives inguinal hernia as 73.41 per cent. And of the twenty-five or more cases now under observation, there is only one other form of hernia—that one being a very slight umbilical hernia, which requires no support. There is about 5 per cent of the constant population of the Reformatory so afflicted, and at least 80 per cent of those have attempted one or more forms of cure, other than operation. The most common method is the truss. Its use is satisfactory in a large portion of the cases—but only as an aid to comfort and a safeguard against immediate protrusion; as a means to a cure it is of no value whatever. The next method which seems to have been tried in a large number of cases is by injection, used by many advertising (self-styled) “special-

ists.” The method used by them is to inject a solution for the purpose of producing an inflammation about the ring, thus reducing its size and mechanically preventing the hernial protrusion. It is true that there are a few cures by this method, but it is a dangerous means, and should be discouraged in every case, thereby avoiding the occurrence of such a case as the following: This patient had submitted to injection on two different occasions, and when he came to me there was a distinct tumor over the right inguinal region. It was impossible to make a reduction, and an operation was advised. The operation disclosed the fact that the adhesions due to the injections had incorporated a portion of the bladder, and as these adhesions had contracted, they had drawn the bladder wall into the sac. In this mass of omentum, gut, and bladder tissue, bound down with adhesions into a solid mass, I began my dissection. After freeing the bowel, the task of breaking up the rest of the adhesions seemed easy, until it was discovered that there was bladder tissue incorporated in the adhesion-tumor caused by the injections. The bladder was opened in the effort to free it from the mass, and a repair had to be made before the other operation could be finished. The recovery was rapid, the cure perfect, and the patient became a strong man for the first time since the development of the hernia.

There is one other injection method which I will mention briefly, namely, with paraffin. Paraffin is combined with white vaseline in such proportion that

the melting point is slightly higher than the body temperature, about 104 degrees F. This mixture is thoroughly sterilized and injected into the tissue about the ring, thus forming an artificial obstruction to the hernial protrusion. After a time the paraffin mass becomes permeated with connective tissue cells. This is the only injection method which should be employed, but even this is now being discouraged by those who have used it most.

In contrast to these methods, which I would condemn, I will give a brief description of my favorite operation, that of Bassini, of course barring the variations which are bound to occur in nearly every individual case, especially those which have had injections used, or in long standing cases with many adhesions. The patient is prepared in every way as carefully as for a laparotomy; the intestinal tract thoroughly emptied; the parts shaved; a 1:10,000 bi-chloride dressing applied the night previous, thoroughly scrubbing at the time of operation; an alcohol, and then an ether sponge before the incision is begun.

An incision is made about one inch internal to, and parallel with Poupart's ligament, and two and a half to three inches long—(varying with the size of the hernia). The aponeurosis of the external oblique is separated in the direction of its fibers in such a manner as to leave at least half an inch margin between the outer edge of the incision in this structure and Poupart's ligament. The sac and cord are separated; the sac is cleared to a level with the transversalis fascia, emptied, opened, and the forefinger passed into the neck of the sac to prevent the return of the contents. An assistant encircles the neck with a catgut ligature, drawing it snugly upon the introduced finger as the latter is withdrawn. The ligature slips over the head of the finger and injury of the intestine is rendered impossible.

The sac is cut away. The cord is brought forward, while the internal oblique and transversalis are sutured to Poupart's ligament. The cord is now covered with the aponeurosis of the external oblique, and a new canal thus formed.

This operation is applicable to most of the cases and is superior to other operations, where the sphincterlike action of the arciform fibers has been destroyed by prolonged stretching or truss pressure, and in which the success of the operation must depend more on the closure of the canal through suturing and the subsequent development of adventitious tissue to maintain the closure than through typical restoration of the parts.

In case it becomes necessary to extend the incision to the level of the internal ring, in order to narrow the posterior wall, the deep epigastric artery and its accompanying veins must be ligated first. In this case, the cord, previously well freed, is placed in the gap thus formed. The internal abdominal ring is obliterated and the loose structures of the relaxed posterior wall of the canal are gathered up and through-and-through mattress sutures applied. The inguinal canal is closed as before. The skin is brought together with a running subcutaneous suture and the edge may be sealed with collodion or dressed with gauze, and adhesive strips bound over the site of the operation. It is well to keep the leg on that side slightly flexed.

So much for the various methods of cure. Now I wish to call your attention to facts I have observed concerning some of the mental conditions of the hernia cases under my observation.

Inmate T, aged 19, exceptionally well developed muscularly, ptosis of both eyes, left inguinal hernia, curvature of spine, a scar in right inguinal region which he claims was the result of an operation for strangulated hernia in 1902;

there is also an undescended testicle on the right side. He has served several jail sentences, and many short prison terms, has always posed as a pugilist, has abnormal sexual desires. During the seven months that elapsed before operation for hernia this man was in trouble continually. He was always vicious, surly and very irritable. No treatment during that time would change his condition. October 1st, 1904, he gave his consent to have the radical operation for the right hernia. On October 7, I operated, using the Bassini method; sac was very large, extending into the scrotum, containing a large mass of bowel and omentum. On reaching the neck of the sac, I discovered the undescended testicle, which I drew up through the neck of the sac and excised. The sac was tied off and the rest of the operation carried on in the usual way. He made a rapid recovery, and resumed work November 5. Since that time the man has been at work every day; has not been reported for any misconduct; his mental condition has been vastly improved; he is cheerful and is as contented as one could be under similar circumstances. This case had many abnormal factors, which you might say would work upon the mental state to make this man vicious, but I will quote another where history and physical examination revealed hernia as the only abnormality.

Inmate F, age 27, received here February 3rd, 1904, came with an excessively large right inguinal hernia, so large that no truss would confine it. Frequently this hernia would become strangulated and would remain so from two to ten hours. Owing to the inflammation that had been brought about by these repeated strangulations, he was urged to submit to the radical operation. To this he consented. He was put in bed and kept at rest for fifteen days. The mental condition from the

time of his being received here and up to the time of the operation on March 18, was fully as vicious as the case previously described, and further he displayed a disinclination to do any physical labor. The operation had no interesting variation from the ordinary Bassini procedure. The recovery was rapid, and he resumed work on the 7th of April. The mental conditions improved rapidly and he has had no trouble since that time. He has worked every day, and been a model prisoner. This case was of a man who is well educated, had never had any severe illness, and had held a good position up to the time of the occurrence of the hernia, but from that time he was in serious trouble.

Now, I do not mean to say that hernia is the cause of viciousness in every case, nor do I wish to have you understand me to say that hernia is the only cause of these mental conditions; but I do say that no man with a hernia can afford to allow it to exist, and that other abnormal conditions in this region, pressing on the same nerve filaments, such as varicocele, etc., should receive proper and immediate treatment. I also wish to state positively that where abnormal *tendencies* exist in an individual, and a hernia is present, there will be a rapid development of these criminal tendencies, and sooner or later they will find themselves in the reformatory or prison, and further, when they are so restrained, the vicious tendencies will become exaggerated, and, unless the radical cure is submitted to, they will be a constant danger to themselves and those around them.

It is patent to all that pressure is the cause of these abnormal mental conditions, that the pressure must be removed, that the truss will only tend to exaggerate the symptoms, that injection methods will never relieve such tendencies, as the pressure from the in-



flammatory tumor will continue; that, if you are sincere as to the welfare of the patient, you must perform the radical operation. Many a man, with these

conditions existing, becomes disagreeable at home and in his place of business (although he may have no criminal inclinations), and it is due to hernia.

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## PREGNANCY: DIAGNOSIS, HYGIENE, DELIVERY AND AFTER-TREATMENT.

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FRANK A. WEAVER, M. D.

Charlotte.

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The purport of this paper, as the title would indicate, will not be to dwell upon the function of ovulation and menstruation, of conception and generation—of the development of the foetus at the different stages of pregnancy, of malposition of the foetus within the uterus, and abnormal presentations of the foetus during labor, but will be to deal briefly with the subject of the pregnant woman in a normal condition.

Pregnancy is that function which is brought about by the union of the two sexes, the male and the female, in the act of copulation, whereby the semen, the male element of generation, comes in contact with the ovule, the female element of generation. The uterus is subject to very decided changes, from the time conception takes place until the pregnancy has terminated at full term. The uterus in the unimpregnated state measures in length about two and a half inches, and weighs about one ounce, while at the full term of a pregnancy the weight of the emptied uterus would be about one and a half pounds, and the length about twelve inches.

In the early months of pregnancy, and while the uterus is still within the pelvis, the diagnosis of a pregnancy is made

with difficulty. We do not always have the nausea and vomiting which is so common with some women; we do not always have suppression of the menses in the early months of pregnancy. In fact, many of the most prominent symptoms may be wanting. Therefore, in this class of cases, unless the diagnosis is made by a vaginal examination and exploration of the vagina with the finger, coupled with changes observable in the mammary glands, and enlargement of the veins which course over the abdomen, the case may go on uninterruptedly without the discovery being made even by the woman herself, until about four and a half months, at which time the uterus rests above the brim of the pelvis, and the mother discovers her true condition from having observed unnatural movements, which are produced by a live foetus. On the other hand, the woman may have such well marked and troublesome symptoms that the diagnosis of her condition is made with the greatest of ease. She is often compelled to consult her physician to obtain relief from the reflex troublesome symptoms, which supervene at times. As soon as the diagnosis of the pregnancy is established and a doubt no longer ex-

ists, and the woman herself realizes her true condition,\* we then must consider the hygiene of the pregnant women and do all that is possible to assist her in carrying the child to full term. At this time we should impress upon her mind the necessity of properly clothing herself; the easy-fitting shoe should take the place of the high-heeled, tight-fitting shoe; waist bands should be loose and all the garments should be suspended from the shoulders; no garters or corsets should be worn. Perfect freedom must be allowed and she must be humored in every conceivable manner—her likes and dislikes should be gratified in so far as is possible, all craving for certain articles of food should be gratified, out-of-door exercise should be encouraged, either walking, or riding in an easy-riding vehicle. A pregnant woman may be allowed to attend to her household duties, providing that she avoids heavy lifting, sweeping of floors, making trips up and down stairs; in fact, any and all violent exercise must be avoided. As time wears on, and month after month passes, and the full term of gestation approaches, different symptoms will be noted in different women, not at all unnatural from the normal state of a pregnant woman. However, no set of symptoms can be outlined as governing all cases, whether normal or otherwise. Finally, as labor approaches, restlessness and abnormal uneasiness take hold upon the woman; pains may commence either gradually or abruptly; they may or may not be preceded by a lochial discharge; they gradually increase in severity and frequency, and the medical attendant is called in. In these days of trained assistants we are usually preceded by the trained nurse, who in these cases is a God-send to the physician; where the nurse can be had the physician upon his arrival finds his patient in a sanitary condition, all surroundings having been rendered as near

aseptic as is possible in this class of work. If there is no nurse, the physician will often find some wise old lady, whose whims he must humor as conditions indicate.

His first duty will be to ascertain the true condition of his patient by examination. If the labor be a normal one, he must determine at what stage the labor has advanced; if he finds her in the first stages of labor or the stage of dilatation, he must not be over-zealous to hasten nature's workings, but should direct his patient and attendants in their work. The labor is conducted best with the patient in the recumbent position, thighs flexed on abdomen, or the patient may lie on either side with thighs well flexed, which affords an excellent opportunity for the physician to assist in the final delivery of the child; it is occasionally advisable to have the patient placed on her knees, with the chest resting on the edge of the bed; I have often found this to be a very good position in the later stages of labor. After full dilatation has taken place, the physician should gently assist in dilating the soft parts and in lowering the head during each pain, giving chloroform in the last stages when indicated, to facilitate relaxation, to prevent lacerations, and to relieve the patient from the agonizing pains during the second stage of labor. In the third stage the expulsion of the afterbirth and contraction of the uterus occupy the attention of the physician; while the nurse is busily occupied in caring for the new born babe, after the third and last stage of labor, the physician should carefully examine and then cleanse his patient, repair any lacerations at once, after which insist upon perfect rest in the recumbent position and absolute cleanliness; in short, follow nature as closely as is possible and no accidents can occur. I do not use douches after confinement, except in unusual cases. Where discharges exist.

which cannot be stopped in any other way. I allow my patients to be lifted on to a vessel after the first day to void urine, or for a movement of the bowels; I have discarded the time-honored bedpan except in certain conditions where it seems necessary. In getting on the vessel, all pent up clots (and we invariably have them) pass off readily, and in a short space of time all offending ma-

terial is out of the way; the patient then passes through her puerperium to a complete recovery without a rise of temperature of one degree. Such are the rules governing my methods in obstetrics and I hope you will not think me egotistical when I say that I am proud of a record of 25 years of busy work in this line, with not a single death of a woman.

#### Opsonic Treatment of Surgical Diseases.—

A. P. OHLMACHER, Detroit, thinks that possibly Wright's comparatively simple theory of opsonins and its practical application have been rendered needlessly confusing to the average practitioner and gives his own experience with the use of bacterial vaccines, preferably autogenous, in various surgical conditions. While not neglecting to take the opsonic index when practicable, he was compelled to rely largely on the clinical manifestations as a guide to the repetition and size of dose, always endeavoring, of course, to give the injections at the right time, when the positive phase is beginning to fall and not in the negative phase. As Wright points out, the great causes of failure in previous tuberculin treatment was the giving of too large injections and too frequent repetition of the dose, causing a marked negative phase and keeping it up. Ohlmacher thinks that his results might have been better than they were had he been able to make more systematic opsonic determinations, which often show a fall of resistance before the symptoms indicate it. He has had remarkable success in various types of staphylococcus infections; obstinate cases of acne and furunculosis, impetigo, palmar abscess and in a very distressing case of what had been called psoriasis, but which he thinks was an extraordinary case of staphylococcic dermatitis, and which yielded rapidly to opsonic treatment with an autogenic culture of staphylococcus aureus. He had also very satisfactory results with a case of very annoying bladder infection from the colon bacillus, similarly treated after other treatment had failed. A very striking case was one of sacculated pneumococcus empyema, in which perfect recovery occurred in seven days after two injections following a small puncture. Ohlmacher believes that even the generally condemned method of aspiration would have been sufficient in this case when reinforced by opsonic

therapy. Owing to delay in obtaining Koch's tuberculin R., the standard vaccine for tuberculous cases, his experience with tuberculosis has as yet been limited, but he has been able to obtain a strain of gonococcus culture with which he has had striking success in the treatment of gonorrhea and its complications, including gonorrheal rheumatism and conjunctivitis. From what he has already seen, he is prepared to say that with proper artificial autoinoculation, we can obtain constitutional and local improvement in many subacute and chronic affections entirely beyond anything previously possible in medicine. He believes that we have in this method of bacterial inoculations therapeutic agents of a specificity and potency beyond anything heretofore employed in the treatment of disease, except, perhaps, the diphtheria antitoxin.—*Journal A. M. A.*, Feb. 16, 1907.

**Rheumatism in Children.**—J. ROSS SNYDER, Birmingham, Ala., questions the present tendency to widen the conception of rheumatism in childhood. He says that, eliminating scurvy, pyemic arthritis and the soreness and stiffness of muscles and joints from clothing, coddlings and bouncings, the cases of rheumatism in nurslings are almost *nil*, and from the eighth year onward an attack of rheumatism in a child resembles more or less closely the adult type. He gives a list of a number of conditions that have been regarded as occasional manifestations of rheumatism and some of these have in certain cases a connection that can not be denied. The most important of these are the cardiopathies, especially endocarditis, but in view of the number of infective processes that are capable of causing both arthritis and endocarditis, Snyder thinks preconceived notions as to the association of the two disorders will cause many mistakes in diagnosis. As regards chorea, tonsillitis and erythema nodosum, he is inclined to think the evidence as yet insufficient to prove their relations to rheumatism. As regards the many other conditions considered to be manifestations of child rheumatism, his opinion is that they will "one by one be taken away from this connection until rheumatism will come to mean not everything, but something or nothing."—*Journal A. M. A.*, February 9, 1907.



## The Journal of the Michigan State Medical Society

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MARCH

### Editorial

Superstition plays an important part in the conception which the lay mind has of the practice of medicine. Just as chemistry is, in a great measure, the outgrowth of alchemy, and astronomy the outgrowth of astrology, so is the practice of medicine to some extent the outgrowth of magic and superstition. The interesting relations of faith, superstition and medicine have been set forth in a volume by Professor Magnus, recently translated by Doctor Salinger, of Philadelphia.\*

Faith and superstition both originate in the feeling which every one has of the inadequacy of science to explain the ultimate origin of organic life. Faith is responsible for the sublimest ideals of the human mind; superstition is responsible for many false ideas; both are "children of the same family." In fact, in the earlier Greek philosophy, superstition and faith are inseparable, becoming divorced only when natural phenomena began to be interpreted by natural, rather than supernatural causes. Superstition then resulted as a reaction against scientific interpretation, and quite naturally therefore has played a most important part in the medicine of all ages. These medical superstitions have been vested with the

cloak of either religion, philosophy or natural science, often with all three simultaneously.

With the Greeks, theism and medicine were closely allied. The gods were responsible for the appearance of disease and were therefore in duty bound to expel it. Apollo invented the cure of disease, Aphrodite was in charge of the confinement bed, and Athena specialized in ophthalmology. The priests, being the intermediators between the gods and the people, naturally assumed many medical functions. Later, when the physico-mechanical theory of life became antagonistic to theism, the priesthood claimed for themselves the power to control nature. The priest gradually became physician, prophet and interpreter of dreams. This was true universally, among the Gauls, Britons, early Romans, Greeks, Medes and Persians. Cunning fellows, outside the priesthood, took up magic and sorcery and there soon developed a lay profession of miracle workers and charlatans under the name of magi.

Under the Roman emperors, the treatment of the sick by magic was quite universal. Hadrian, Antonius Pius and Marcus Aurelius were devoted believers in the power of magic, the latter relating that the gods in a dream had prescribed a remedy for the hemorrhagic cough and vertigo from which he was suffering. Under the later emperors decrees against magic treatment were issued.

Temple sleep, church sleep, medical saints and the cult of relics furnish many examples of medical superstition, founded upon religious ideas.

The various schools of philosophy which tried to explain the phenomena of nature and of life, naturally fostered many medical superstitions. By means of one or another nebulous theory, such schools of philosophy have been rampant in every age. The two notable examples to-day are the theories of Mother Eddy and of Elijah Dowie.

\*Superstition in Medicine, by Prof. Hugo Magnus. Authorized and translated from the German, edited by Dr. Julius L. Salinger, late assistant professor of Clinical Medicine, Jefferson Medical College; physician to the Philadelphia General Hospital. Published by Funk & Wagnalls Co., New York and London, 1905.

The relation of medical superstition to natural science was first exemplified in the supposed influence of the heavenly planets upon human ills. This is proven by the Babylonian cuneiform tablets in the British museum which contain many illustrations as: "If the wind comes from the east upon appearance of the moon, disease will prevail during the month." The signs of the zodiac, as pictured in any medical almanac, survive to-day to remind us of the beliefs of centuries ago.

Many of the remedies employed by the ancients are familiar, such as: "Remedy against glaucoma. If the right eye become afflicted with glaucoma, rub it with the right of the wolf, and similarly, the left eye with the left eye of the wolf."

"Remedy against headache: Tie the rope of a hung criminal around the forehead."

The modern quack follows his ancient prototype, in that he employs the most sensational methods available. In place of the eye of the wolf and the hangman's rope, he uses, or pretends to use, the X-ray, the static machine, various electric lights, etc.



**Medical Superstitions even of to-day** are numerous. That they should still be encountered in the midst of a high civilization and an almost universal education illustrates how tenaciously the mysterious, no matter how nonsensical, clings in the minds of men. The writer has more than once been compelled to postpone operations until the phase of the moon became propitious. He has several times been asked to change the position of the furniture in a room so that the proper currents of electricity might pass from north to south over the bed and thus ensure the healing of a wound. Both of these superstitions can readily be traced to the ancient beliefs in the influence of the planets upon human ills. We are all familiar with

the horse chestnut cure for rheumatism, the blood of the toad as a cure for warts, and the angle worm therapy for anemia. The familiar magic belts, medicated chest protectors, and electric hair brushes, not to mention the worst of all fakes, the S. E. C. rings, sold by one Hyatt, of Detroit, at two dollars per ring, and so frequently worn that they are in evidence on almost any street car in Detroit (especially on the "three-cent lines") are foisted upon the public by the crafty, who well understand the hold which medical superstition has upon the credulous.

Certain sections of the country have their own medical superstitions. Such provincialisms are particularly noted in the southern states, although by no means lacking in the north. A recent paper by Hawkins,\* on the "Magical Medical Practice in South Carolina," gives many interesting details of the practice known as "using," which has been handed down from father to son in a community, originally settled by Germans, who came, about the middle of the eighteenth century, from the Lower Palatinate, Baden, Wurtemberg and Switzerland.

Although these teutonic Carolinians are intelligent and educated, many of them still cling to the old beliefs in the laying on of hands and the recitation of certain rigamaroles, known only to the initiated "users." The latter are not numerous and therefore must travel about, being sent for in emergencies. The following examples cited by Hawkins, give an idea of this practice:

For Cataract: *I rub you with my right thumb, that you may move and depart. In the name of the Father and of the Son and of the Holy Ghost. Amen.* Rub it with the thumb from the nose outwards until you say the above words, blowing first three times. This must be done three

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\*Popular Science Monthly, February, 1907.

mornings and evenings, and every time, three times.

For a Burn or Scald: *The Holy Woman goeth out over the land; what carries she in her hand? A fire brand. Eat not in you, eat not around you. In the name of the Father, the Son, and the Holy Ghost. Amen.* Say these words three times, rub three times upward and downward, and blow three times—every time, three times.

Hawkins says: "The survival in the midst of a high civilization of these Carolina practises, allied as they are to practises and beliefs of almost primitive times, affords a pertinent illustration of the manner in which magical acts cling to life. \* \* \* Their retreat, however, has been more rapid since science has begun to shed her rays into the dark places where such things hide themselves; and in proportion as this great light becomes more generally diffused, magic in medicine, as in all other departments of human thought, will fade and finally disappear."

It would be interesting to study the medical superstitions of the descendants of the Hollanders and of the French, here in Michigan.



**The superstitions concerning maternal impression** during gestation clings as tenaciously to many physicians as it does to the laity. In the present age of medical education, free though it is from the majority of the notions of our forefathers, it is surprising how certain superstitions survive,—a survival not of the fittest, but of the least fit; and the belief that certain birthmarks and deformities are produced by mental impressions of the mother after conception has withstood years of enlightened training and the strongest attacks of scientific testimony. The subject is never broached in a medical gathering that it does not provoke heated discussion; on the one side, clear, logical, scientific rea-

soning that absolutely disproves the mossy superstition, and on the other side passionate but empty allegations, supported by cited cases, which carry no iota of conviction. In even so learned a gathering as the pediatric section of the American Medical Association, at its last session, an excellent paper on the subject was opposed by the same fossil arguments, which in the light of logic appear nothing short of absurd.

Evidently, then, articles like this one by E. T. Shelly, M. D., on "Superstition in Teratology," appearing in the January 26th issue of the *Journal American Medical Association*, need as wide a circulation as possible, and also need attention called to them besides. It seems a pity, in this age of valid reasoning and meritorious skepticism, that the medical profession still contains so large a number of men who are impermeable to logic. It means an ignorance of embryology, and the physiology and pathology of pregnancy that speaks ill for their education. The day has come when we ought to put aside superstitions,—not only those entertained by the laity, which are gross and palpable, but also those cherished in the profession, which are often insidiously credible.



**Instruction of the Public by Medical Schools.**—"The faculty of the Harvard Medical School has voted to offer a course of free public lectures, to be given at the new medical school buildings, Longwood avenue, Boston, on Saturday evening and Sunday afternoons, beginning January 12, and ending May 12. Following is a list of the lecturers and their subjects:

Dr. Robert W. Lovett, "Unfavorable Conditions of Modern School Life." Dr. Edward H. Bradford, "Deformities of the Feet from Shoes." Dr. Robert W. Lovett, "Round Shoulders and Lateral Curvature." Dr. Edward H. Bradford, "Costume Deformities in Growing Children." Dr.



Harold C. Ernst, "Bacteria in Health and Disease." Dr. Charles Harrington, "Public Milk Supply." Dr. George W. Gay, "Under What Circumstances Should You Send for the Doctor?" Dr. Charles Harrington, "The Adulterations of Food and Drugs." Dr. Harold C. Ernst, "Bacteria in Health and Disease" (No. 2). Dr. Charles B. Macgrath, "How the Common Infectious Diseases Are Spread." Dr. Elbridge G. Cutler, "The Care of the Sickroom." Dr. Charles Harrington, "Public and Individual Water Supplies." Dr. Theobald Smith, "Antitoxins and Vaccines." Dr. Maurice H. Richardson, "What Surgery Can and Cannot Do." Dr. William T. Councilman, "Disease." Dr. Clarence J. Blake, "The Hygiene of the Ear." Dr. William T. Councilman, "Disease" (No. 2). Dr. Joel E. Golthwaite, "Facts About Rheumatism." Dr. Thomas Morgan Rotch, "Care of Healthy Infants and Prevention of Disease in Early Life." Dr. John Hildreth McCollom, "Some Points Concerning Nursing in Scarlet Fever and Measles." Dr. John Lovett Morse, "Tuberculosis in Early Life." Dr. Maynard Ladd, "Some Facts the Public Should Know Concerning the Feeding of Infants." Dr. Charles Hunter Dunn, "Significance, During Infancy and Early Life, of Disturbances of the Stomach and Bowels." Dr. Arthur K. Stone, "Some Phases of the Tuberculosis Problem." Dr. Theobald Smith, "Tuberculosis: Methods of Invasion and Dissemination." Dr. Harold C. Ernst, "Pulmonary Tuberculosis." Dr. Myles Standish, "Eyesight and School Life." Dr. J. Babst Blake, "Florence Nightingale and the Beginning of Surgical Nursing." Dr. Franklin W. White, "Food in Health and Disease." Dr. William T. Porter, "The Growth of Children." Dr. Franklin W. White, "Food in Health and Disease" (No. 2). Dr. Maurice V. Tyrode, "History of the Treatment of Disease." Dr. John T. Bowen, "The Care of the Skin." Dr. Samuel A. Hopkins, "The Hygiene of the Mouth and Teeth." Dr. James S. Stone, "The Physical and Mental Development of Children."—*The Harvard Bulletin*, January 9, 1907.

Speaking broadly, but still truthfully, the most important class of people practicing medicine are not physicians. This is because physicians are a hundred times and more out-numbered, because they are necessarily engaged mostly in curing or relieving disease, rather than in pre-

serving health, and because they never treat at all the larger part of the cases of disease even—that great class of so-called minor ails that collectively cause the major part of the physical suffering and disability of the human race. If the public are, and must continue to be, the most important class practicing medicine, it is desirable that medical schools instruct this class, indeed it may be said that directly or indirectly this is their chief duty.

We therefore regard with great satisfaction the action of the faculty of the Harvard school in offering the course of free public lectures as listed above. The subjects chosen show wise adaptation to the needs of the public; and each lecturer is an authority on his subject.

The public are in general superstition-ridden, advertisement-misguided, suffering, eager to learn, and as a class, the most important in medicine. But it is not the public only that will be benefited by such courses of lectures. Under our jury system of litigation, after exposition by judge and opposing attorneys, decisive authority is vested in a group of unprejudiced common laymen, not lawyers. More and more, momentous questions are finally decided, after full publicity, by the court of public opinion. So also in medicine, free publicity would tend to the same democratic, largely just, solution of opposing medical opinions, and the suppression of irregular, incomplete methods of practice.

We regard the initiation of systematic public instruction by the Harvard Medical School as prophetic of a new and much-needed function of all worthy medical schools. The medical school was first a place for students to be taught; comparatively recently it has become a place for teachers and students to learn—a place for research as well as for instruction; and now it promises to be a place for direct public instruction. We

earnestly hope for, and expect, the adoption of public instruction in our medical schools in Michigan.



The Committee of the Michigan State Medical Society, appointed to report on the **Patent Medicine Evil**, recognize that the evil is chiefly to the public, and that it is only this conception of its effects that justifies professional and legislative efforts to correct it.

Prominent among the causes that keep alive and encourage this evil are the abuses of advertising in the public press, lay and religious, and in some so-called medical journals, and the abuses of the business and advertising of drug stores and in the support given by some doctors. It is hoped to secure correction as far as possible by restriction of these abuses in medicine, corresponding in direction to what the pure food law has accomplished in the prevention of impure and unsafe foods. Protection for the public against unsafe medicines is even more necessary than for food, as the average citizen can better judge of impurities in food than of safety in medicine.

It is well known that a large number of prominent and influential papers, journals, and magazines have voluntarily refused to publish these pernicious advertisements. And there is reason to believe that properly directed efforts, with more enlightened public opinion, will cause their disappearance from all respectable journals.

It is the wish of this committee to have all reputable papers and journals of the state asked, directly or through their controlling associations, to co-operate in this reform movement by eliminating from their columns all advertisements of patent medicines that are manifestly untrue and misleading, and all "reading notices" and "guarantees," so called, which appear to be editorial endorsements and commendations of the medicines advertised, but which in fact are paid advertisements, and more dangerous because of their deceptive appearance. Many religious papers, so called, are especially culpable in advertising patent medicines and quack cure-alls, although some have greatly reformed in this respect.

Considering the boasted liberty—might we not say license—of the press and the credulity of the public, it is not strange that lay papers should print the misleading and dangerous advertisements to which they give so much space; but it is more than strange that religious journals should

give countenance and encouragement to such deceptive and harmful advertisements as are found in the columns of some of them. It is a hopeful sign that this abomination has never soiled the pages of some excellent religious journals. The average reader of a religious paper is disposed to accept—or at least has a right to expect—the appearance of an advertisement in its columns as in some sense an indorsement of the statements made, and of the merits of the article advertised, naturally assuming that such a paper could not advertise what its editors did not believe to be true.

Many ministers of the gospel do not approve such use or abuse of their denominational organs, and are keenly alive to the inconsistency between preaching and practice shown in the editorial and advertising columns, and are aware of the fact that not only is the influence of such papers belittled, but the preacher also is in a measure handicapped. Such ministers will be glad to see these shameful offenses to intelligent readers removed from papers for which they are expected to solicit support. And in the denominational conventions in which the business affairs are conducted they can do much to abate the wrong.

Druggists are required to pass examination in pharmacy before being licensed, and to know something of the drugs they handle, and how to put up physicians' prescriptions, the character and qualities of which may be known, and are recorded, protecting physician, druggist and patient alike. Yet the license of the druggist in no way qualifies or enables him to know anything about the secret patented medicine he sells. And, when he sells it, he in effect practices medicine. A man claiming to be a physician could not dispense the same thing, if disposed to, without a license as physician from state board and registration in county clerk's office. It is worse still, when the druggist lends his name to cunningly phrased advertisements of "guarantees" or doggerel which offend both rhyme and reason, and to others which strain the borders of propriety and decency as well as of truth and sense. All this calls for correction, and many druggists will be found ready to aid in abating a great discredit to pharmacy as it is too generally practiced.

Members of the legislature desire information upon all subjects which may come before them. The present pure food law enacted by last Congress, while containing some wholesome legisla-

tion pertaining to medicine, will need, in the opinion of well informed attorneys, supplementary action by state legislatures to protect the people against dangerous drugs made and sold in the same state. The law is found incomplete also in furnishing the protection intended against impure food, and the Governor in his message to the legislature has recommended supplemental legislation to secure the purpose of the original bill. This should make it easier to secure amendments relative to medicine.

The committee realize that the patent medicine evil is great, wide-spread, and of long standing. Individual or local or spasmodic efforts will accomplish but little. In order to secure uniformity of action and have the united co-operation of the profession of the entire state, the committee recommend that each County Society, by Auxiliary Committee, personal interview, printed circular, or such course as each Society deems best, take immediate measures to secure consideration of the various phases of this evil, and expression of opinion, and advice as to methods for its correction, from proprietors and editors of newspapers and public journals, druggists, ministers of churches, and members of the legislature in each county. The committee suggest to County Societies the advisability of holding at least one open meeting in the year—the winter is a good time—to which are invited editors, publishers, druggists, ministers, legislators, educators and other public-spirited citizens, together or in groups, to a friendly conference and discussion of the aforesaid evil and kindred topics in which all the public have a common interest.

Among the useful things county societies may do for the public the committee advise securing analyses of secret dangerous preparations. The committee do not advise efforts that could be construed as interference with legitimate business. The relations between medicine and pharmacy should be harmonious and mutually helpful. But the time seems auspicious, and the profession of medicine would appear delinquent not to co-operate in the general awakening in this Campaign of Education, of the profession as well as the laity. Let us reason together. The committee also recommend each County Society to procure for its members copies of circular reprints of papers on "The Patent Medicine Evil" that have been published in various lay and medical journals, for reading matter in office waiting rooms and for gratuitous distribution where they would do most good.

The committee would be glad to have suggestions at once that will aid in their work and that may be incorporated in recommendations to Committee on Legislation to which they will be referred.

THE COMMITTEE.



In two respects the medical profession deserves the grateful recognition and regard of all other callings in modern life. We have always insisted that the practice of medicine is a profession and not a trade. Trade is occupation for a livelihood: profession is occupation for service of the world. Trade is occupation for joy in the result; profession is occupation for joy in the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade is occupation taken up temporarily, until something better offers; profession is occupation with which one is identified for life. Trade makes one the rival of every other trade; profession makes one the co-operator with all his colleagues. Trade knows only the ethics of success; profession is bound by lasting ties of sacred honor.—President Faunce of Brown University.

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The Young Women's Christian Association of Detroit have opened a Convalescent Home at 214 Harper avenue east "for women and girls of limited means, who, owing to the absence of acute diseases or the necessity of operative interference, are not readily admissible to the general hospital.

"There are two classes of patients for whom this home is especially intended. First, those who are obliged to leave the hospital to return to unhygienic surroundings before they have recovered strength sufficiently to resume their ordinary labors and thus lessen the benefits received in the hospital; second, the many women and girls not acutely ill who need rest, medical care and good food to prevent serious illness.

"A nominal charge will be made patients able to pay and all patients may remain under the care of their own physician.

"Patients will be received in the order of application; stay in the home being limited to two weeks, except under special circumstances."

Application for admission may be made by application blanks filled out by any registered physician, or directly to Dr. Florence Huson, Mrs. A. P. Brush, or Mrs. J. W. Finney.



## Book Notices

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**Pulmonary Tuberculosis: Its Modern and Specialized Treatment.**—By Albert Philip Francine, A. M. M. D., of the Staff of the Henry Phipps Institute, Philadelphia; Examining Physician to the White Haven Sanatorium; Instructor in Medicine and Physician to the Medical Dispensary of the University of Pennsylvania; Medical Registrar to the Philadelphia Hospital. J. B. Lippincott Co. 1906.

Doctor Francine is obviously exceedingly well qualified, from wide personal experience and an accurate knowledge of the methods employed by the most successful institutions and private practitioners, to discuss the treatment of this disease as at present carried out, and has prepared a book which should be very welcome to the general practitioner. It treats very fully the questions of fresh air, exercise, climate, diet, drugs and the management of symptoms, and is particularly clear in its instructions regarding those details of routine treatment on whose careful observance success so largely depends. Chapters of especial interest are those on climate, drugs, and symptoms. A treatise of this compass and purpose must necessarily dogmatize somewhat, and cannot be expected to devote much space to moot questions in pathology and therapeutics, such as milk infection, the value of the various sera, etc. The present status of Koch's tuberculin is, however, very well set forth. The author's style is clear, and the matter well arranged. There are signs in places of hurried writing and proof-reading.

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**Elements of the Science of Nutrition.**—By Graham Lusk, Ph. D., M. A., F. R. S. Cloth. Pp. 326. Price, \$2.50 net. W. B. Saunders Co. 1906.

It has not been Doctor Lusk's aim in the preparation of this volume to present a text-book on diet and feeding, nor to discuss the chemistry and physiology of digestion. The book deals solely with the science of metabolism, on a knowledge of which any rational treatment of problems of nutrition must be based, and while in no sense a primer, it gives a very clear and satisfactory statement of our present knowledge of this complex subject, which has been considerably illuminated by researches completed during the past

few years. Beginning with an introductory chapter concerning the history of the science, the author proceeds to a discussion of the feces, their functions in excretion and the knowledge obtained from them. Following this are chapters on the metabolism in starvation, and the evidence it furnishes concerning the sources of bodily energy; on the regulation of temperature; on the fate of the different food principals in the body, the functions they serve, and their excretory products; on the constituents of a normal diet, in which is seen a tendency to approve of Chittenden's ideas; on metabolism in various pathologic processes; and a final chapter on the general theory. A volume of this kind seems to fill a very decided want, and a careful reading of it, in connection with such a book as the following should be of great assistance to the physician who wishes to bring his knowledge of digestion and nutrition down to date in order to handle intelligently cases in which these functions are disturbed.

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**Recent Advances in the Physiology of Digestion.**—By Ernest Starling, M. D., F. R. S., Jodrell Professor of Physiology, University College, London. Pp. 156. Price, \$2.00 net. Chicago: W. T. Keener & Co. 1906.

This book comprises the ten Mercers' Company Lectures delivered in the Physiological Department of University College in 1905, and is intended to set forth the present state of knowledge of certain phases of this subject in which great advance has been made in recent years, and in particular of those problems concerning which research has been carried on at University College. The various digestive ferments and their mode of action are exhaustively and clearly treated of, and much comparatively new information regarding the laws of physical chemistry which affect them, is given. The new knowledge derived from the researches of Pawlow and others concerning the mechanism of secretion of the digestive juices, their properties, and the conditions that determine variations in them, as well as that concerning the movements of the alimentary tract, is related with a good deal of detail, and with an elimination of technical reports of researches which makes it readable and readily comprehensible. The book does not purport to

be a text-book on digestion, and presupposes a reasonable acquaintance with physiology and physiological chemistry; but given this, the physician who wishes his ideas on so vital a subject as clear and as recent as possible will find here much valuable information not readily to be obtained in such compact form elsewhere.

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**A Text-Book on the Practice of Gynecology.**—For Practitioners and Students. By W. Easterly Ashton, M. D., LL. D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Third Edition, thoroughly revised. Octavo of 1096 pages, with 1057 original line drawings. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, \$6.50 net. Half morocco, \$7.50 net.

The third edition of Ashton's Gynecology has just appeared, less than one year after the second. Its popularity is due, we think, to the fact that it goes into the minutiae of both medical and surgical treatment, more extensively than any book of which we know. It is not exhaustive in the sense of giving all the methods of treatment, for the author has rather confined his text to those methods which he deems best. These methods are then described in detail, the author leaving nothing to the imagination and allowing the reader to take nothing for granted.

The illustrations are abundant—unnecessarily so it would seem, for we can see no excuse for picturing, for example, a glass top table, a glass catheter, an alcohol lamp or a T bandage. It also seems somewhat childish to give space to group pictures of all the instruments required for each operation. A man who requires such an illustration has no right to be operating. However, the illustrations are for the most part good and they undoubtedly illustrate. They are less elaborate than those in many other works but are nevertheless instructive.

The book meets the requirements of the student and general practitioner, rather than those of the specialist.

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**The Harvey Lectures.**—Delivered under the auspices of the Harvey Society of New York, 1905-06. Philadelphia and London: J. B. Lippincott Company. 1906.

The Harvey Society was organized in New York, in 1905, with the object of providing each year a series of lectures on scientific subjects related to medicine. The lectures have been

given for the most part on experimental medicine and have been by men eminent in their own special fields. The first series of thirteen lectures consists of: "The Theory of Narcosis," Prof. Hans Meyer; "Modern Problems of Metabolism," Prof. Carl von Noorden; "On Trypanosomes," Prof. S. G. Novy; "Autolysis," Dr. P. A. Levene; "A Critical Study of Serum Therapy," Prof. W. H. Park; "The Neurons," Prof. L. F. Barker; "Fatigue," Prof. F. S. Lee; "The Formation of Uric Acid," Prof. L. B. Mendel; "The Extent and Limitations of the Power to Regenerate in Man and Other Vertebrates," Prof. T. H. Morgan; "On the Nature and Cause of Old Age," Prof. C. S. Minot; "Modern Views Regarding Placentation," Prof. J. Clarence Webster; "Some Phases of Tuberculosis," Prof. Theobald Smith; "The Cause of Heart Beat," Prof. W. H. Howell.

The book consists, therefore, of thirteen valuable monographs. We hope that this volume will receive such support as will encourage the publication of the next series of lectures.

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**The Practitioner's Medical Dictionary.**—An Illustrated Dictionary of Medicine and Allied Subjects, including all the Words and Phrases generally used in Medicine, with their Proper Pronunciation, Derivation and Definition. By George M. Gould, A. M., M. D., author of "An Illustrated Dictionary of Medicine, Biology and Allied Sciences," etc.; editor of "American Medicine." With 388 illustrations. Octavo; xvi + 1043 pages. Flexible leather, gilt edges, rounded corners, \$5.00; with thumb index, \$6.00 net. P. Blakiston's Son & Co., Philadelphia.

Gould is undoubtedly the foremost lexicographer in America and any dictionary prepared by him becomes instantly authoritative. The book is new in every way and is based on recent literature. Among other new features, it contains the terms of the Basle Anatomical Nomenclature about which we had something to say editorially a few months since.

The standards of pharmaceutical preparations as authorized by the eighth decennial revision of the United States Pharmacopœia are given.

Tables of signs and abbreviations used in general medicine and the specialties, and of the English and metric systems of weights and measures are introduced.

It has been made up in a form most suitable for ready reference, complete in text and illustration, and attractive in appearance. Printed on tough, thin paper, excessive weight and bulk are

eliminated, while the dull surface of the paper, together with the employment of new clear type, facilitate ease and comfort in reading. The book will lie perfectly flat at any page to which it may be opened.

The illustrations number 338, the pages xvi + 1043, thus exceeding any other work of claimed similar nature and scope.

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**Whitman's Orthopedic Surgery.**—A Treatise on Orthopedic Surgery. By Royal Whitman, M. D., Instructor in Orthopedic Surgery in the College of Physicians and Surgeons, New York; Chief of Orthopedic Department in Vanderbilt Clinic, New York. Third edition, revised and enlarged. Octavo, 900 pages, with 554 illustrations, mostly original. Cloth, \$5.50 net. Lea Brothers & Co., Philadelphia and New York.

Orthopedic surgery has hitherto been commonly considered as the most technical of specialties, and as being limited to the hands of the few who could devise and understand the cumbrous apparatus identified with the name. Modern methods have brought a new dispensation to the numerous and universally distributed class of sufferers from mechanical defects in their own bodies. Chief among these advances is the fact that much of this suffering is preventable, and as much curable by attention early in life, when structures are plastic and treatment is both easier and more efficacious. Hence the family physician has become the most important of all orthopedists, for it is he who has the first opportunity, and who is thereby under the highest obligation, to detect, prevent or cure such defects, or to recognize when they must be referred to a specialist. Dr. Whitman's book presents orthopedic surgery exactly along these modern lines, and the demand for successive large editions shows appreciation of its value by the general practitioner as well as the surgeon and specialist. The author has improved the opportunity again presented by the popularity of this standard book by thoroughly revising it to the latest date and incorporating new material and many new illustrations. It is to be highly recommended.

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#### BOOKS RECEIVED.

Text Book of Psychiatry. Mendel and Knauss, Philadelphia, F. A. Davis Company, 1907.

Pocket Medical Formulary. By E. I. Thorn-

ton, M. D. Eighth Edition. Philadelphia, Lea Brothers and Company, 1907.

A Study of the Human Blood Vessels. By Arthur V. Meigs, M. D. Philadelphia, J. B. Lippincott Company, 1907.

Diseases of the Lungs. By Robert Hall Babcock, M. D. New York City, D. Appleton and Company, 1907.

Starr on Nervous Diseases. By M. Allen Starr, M. D., LL. D. Philadelphia, Lea Brothers and Company, 1907.

Fraenkel Festschrift. Beging the December number of the Annals of Otology, Rhinology and Laryngology. H. W. Loeb, M. D., Editor. St. Louis.

A Text Book of Diseases of Women. By J. Clarence Webster, M. D. Philadelphia, W. B. Saunders Company, 1907.

A Text Book on the Pathogenic Bacteria. By Joseph McFarland, M. D. Philadelphia, W. B. Saunders Company, 1907.

A Text Book on Pharmacology. By Torold Sollman, M. D. Philadelphia, W. B. Saunders Company, 1907.

A Text Book of Pathology. By Alfred Stengel, M. D. Philadelphia, W. B. Saunders Company, 1907.

Transactions of the Maine Medical Association. 1906. By the Society, Portland, 1906.

Transactions of the Oklahoma State Medical Association. 1906. By the Society. Guthrie.

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#### Cyclopedia of American Medical Biography.

Dr. H. A. Kelly, of Baltimore, is engaged in the preparation of a Cyclopedia of American Medical Biography to include the worthies who have passed away or have retired from practice in the United States and Canada. He wishes to give an account of the lives and writings of men who have contributed to American medicine. There are also to be included biographies of the men who have been especially prominent in their locality, even though they have not been widely known as writers or original contributors.

Collaborators have been selected for various portions of the country. Dr. Leartus Connor, of Detroit, has been wisely selected for Michigan, and he requests that any one having suitable material correspond with him concerning it.



COMMITTEE ON THE STUDY AND PREVENTION OF TUBERCULOSIS.  
OF THE MICHIGAN STATE MEDICAL SOCIETY.

Bulletin No. 2. March 1, 1907.

To the Officers and Members of the County Medical Societies:—

The "Campaign against Tuberculosis," under the direction of the Committee on the Study and Prevention of Tuberculosis of the State Medical Society, needs the immediate and continued support of every officer and member of the county Medical Societies.

If your county society has not already appointed a Committee on the Study and Prevention of Tuberculosis for local work and to co-operate with the State Committee in accordance with the plan outlined in Bulletin No. 1, will you not interest yourself personally in the matter, see that early action is taken, the desired committee appointed, and the names of the committee members sent to the Chairman of the State Committee?

Pending the appointment of such special committees, the work of necessity must be carried on through the regular officers of each County Society to whom the State Committee will look for prompt and effective co-operation.

The secretary of every County Society is requested to call the attention of the officers and members to Bulletin No. 1 and succeeding Bulletins that, in so far as possible, the "Plan of Campaign" outlined in the Bulletins, may be inaugurated and carried out during the present year.

**The Tuberculosis Census.**

The first important work demanding immediate attention is the Tuberculosis Census, to be taken during the present month of March.

The County Committee or, if no committee exists, the secretary of the County Medical Society, is requested at the earliest possible date to notify the chairman of the State Committee, Dr. W. E. Coates, Onkama, as to the total number of doctors practicing in the jurisdiction of the County Society. The necessary number of circular letters with attached census blanks will then be forwarded for taking this census.

Each County Medical Society through its spe-

cial committee or secretary is requested to send a circular letter and blank to every practicing physician in the jurisdiction of the society. These blanks go to members and non-members alike.

The circular letter states the purpose of the census and requests that the annexed blank be filled out by the physician receiving it.

The census blank asks for the number of cases of all forms of tuberculosis under the doctor's care during the month of March, 1907, together with data giving the age, sex, occupation and form of disease. This data will be very valuable, showing as it will the extent of the disease in all parts of the state. It is to be hoped that every physician, county committee or secretary will give this census careful attention.

All blanks are to be filled out and returned March 31 to the local committee or secretary, who will forward same to the chairman of the State Committee; or the doctors reporting can report directly to the State Committee chairman.

County Committees or secretaries are particularly urged to get returns from every physician in their territories, also from all hospitals, public or private, county poor houses, jails, penitentiaries, asylums and other public institutions.

Necessary bills for postage incurred by County Medical Societies in sending out census blanks and letters will be met by the State Committee, but it is believed that where these bills are comparatively small the expense will be willingly met by the County Societies.

**Use of Bulletins.**

Reprints of Bulletin No. 1 and succeeding Bulletins will be furnished County Medical Societies or interested workers on application to the chairman of the State Committee.

It is particularly desired that County Medical Society members have their attention called to the Bulletins appearing in *THE JOURNAL*. Reprints are for distribution among interested members of literary, charitable, church or other societies co-operating with the County Medical Societies in anti-tuberculosis work. A good use could be made of the Bulletins by mailing or distributing

same among members of the profession not affiliated with our County Societies. This would mean some time, labor and expense for postage, but would be justified as a means to help bring members into our local and state societies.

Many doctors fail to join our County Societies for the reason that some societies are doing very little effective work. We should demonstrate that our County and State Societies are capable of earnest efforts and "are doing something" besides merely meeting and discussing a paper now and then—a judicious use of the Bulletins might help to create this feeling in the minds of many now outside.

### Progress of Campaign.

The signs are not wanting that there is a progressive awakening of the Michigan medical profession to a renewed interest in the "Campaign Against Tuberculosis."

At the last meeting of the Board of Councilors of the Michigan State Medical Society, fifty dollars was appropriated for the use of the Committee on the Study and Prevention of Tuberculosis. This money will be used by the State Committee to defray necessary expenses for postage, printing, etc.

The comments made at the council meeting were all favorable to the work of the State Committee as outlined in Bulletin No. 1.

To successfully carry out the "Plan of Campaign," more money will be required, but if each County Society will co-operate by bearing the expense of sending out circular letters, bulletins, etc., to physicians in the County Society jurisdiction, much expense, time and labor will be saved the State Committee.

From Jackson County Medical Society, Dec. 6, 1906, comes news of a paper by Dr. H. J. Hartz, of Detroit, on "The Sanatorium Treatment of Tuberculosis."

Dr. J. N. McCormack's address, "Things About Doctors Which Doctors and Other People Ought to Know," published in THE JOURNAL for January, contained a brief but graphic statement of the tuberculosis problem in Michigan today—his equally striking admonition to the medical profession "to take up co-operative work with the other vocations" is in line with the present campaign.

The Detroit Medical Journal, January, 1907, publishes the Wayne County Society's "Tuberculosis Program" to which three meetings were devoted.

As a model that might be followed to advantage by other county societies, the program is herewith reprinted.

### General Meeting—January 7.

The Relation of Boards of Health to the Restriction of Tuberculosis, Dr. C. G. Jennings. Discussion: Drs. Guy L. Kiefer, E. H. Hayward.

Sanatoria in the Treatment of Tuberculosis, Dr. Henry J. Hartz. Discussion: Drs. B. R. Shurly, Wadsworth Warren.

### Medical Section—January 14.

Light in the Treatment of Tuberculous Conditions, Dr. H. R. Varney. Discussion: Drs. A. E. Carrier, P. M. Hickey.

Prophylaxis and Treatment of Incipient Pulmonary Tuberculosis, Dr. Stanley G. Miner. Discussion: Drs. E. A. Chapoton, W. S. Anderson.

### Surgical Section—January 21.

Surgical Treatment of Tubercular Adenitis, Dr. T. A. McGraw. Discussion: Drs. Max Ballin, J. B. Kennedy.

Tuberculous Conditions of the Joints, Dr. D. LaFerte. Discussion: Drs. H. O. Walker, J. K. Gailey.

The Michigan Monthly Bulletin of Vital Statistics for December, 1906, reports 207 deaths from all forms of tuberculosis during the month of December, making a total of 2,676 deaths from this disease reported during 1906; 2,274 being due to pulmonary tuberculosis and 402 to other forms of tuberculosis.

The same issue contains a valuable article on "Some Problems in Sanitary Science," by Dr. Guy L. Kiefer, Health Officer, City of Detroit.

The article calls particular attention to the "Spitting Nuisance" as an important factor in spreading tuberculosis and pneumonia. Dr. Kiefer asserts that the result obtained through education whereby smallpox was forced to the bottom of the list of death-causing diseases "can and must be accomplished with tuberculosis and pneumonia." Bearing as it does on the cause and methods of prevention of diphtheria, typhoid and other communicable diseases as well, Dr. Kiefer's paper should be read by both the public and physicians.

The Michigan Monthly Bulletin of Vital Statistics together with other publications of our State Board of Health, should receive more attention from physicians, health officers and the public generally.

"Public Health," the quarterly publication of the State Board of Health, is designed especially for the information of laymen regarding the cause, methods of prevention and restriction of communicable diseases.

"Tuberculosis, Its Restriction and Prevention," is ably presented in the January-March, 1906, issue of "Public Health." Copies of this pamphlet may be obtained, without cost, by addressing the secretary of the State Board of Health, Lansing, Mich.

Every physician in the state might well be engaged in a little missionary work; keep reprints of the State Board of Health publications on the office table, see that patients receive copies of same, and by so doing help to "educate the public."

The public is anxious to be taught—'tis far better that the teaching comes from the pen of the medical profession rather than from quackery and patent medicine advertisements. The cause of quackery and the patent medicine evil lies in the aloofness of the average medical practitioner. Is it not time that this aloofness be cast aside, the public to receive its information from authoritative sources?

A step in the right direction is a pamphlet "Rules and Regulations of the Board of Health of the City of Ann Arbor, Mich."

This vest-pocket size booklet devotes eight pages to instruction regarding tuberculosis, directions to patients and their friends.

"Information for Persons Having Diseases of the Lungs and for Others Living in the Same House" is the title of a small booklet issued by the National Association for the Study and Prevention of Tuberculosis, 105 East 22nd Street, New York.

This booklet can be obtained at practically cost price from the publishers. County Medical Society Tuberculosis Committees could not make a better investment than a few dollars spent for this pamphlet. The information given is in simple language, but so plain that the ordinary lay reader can grasp the truth without danger of developing "phthisiophobia."

The Ann Arbor Medical Club recently listened to a valuable talk on "Opsonins" by Dr. E. C. Bradley. The value of the estimation of the opsonic index in treating certain forms of tuberculosis by the inoculation of tuberculin was well brought out both in the paper and in the discus-

sion which followed by Drs. Dock, Vaughan and others.

Anyone interested in "Opsonins," bearing as they do on new phases of the tubercle bacilli and other bacteria and their modes of action in the animal body, should not fail to read this paper. The paper with the discussion is published in the "Physician and Surgeon," December, 1906, Ann Arbor and Detroit.

The active, aggressive "Campaign Against Tuberculosis" in the City of Grand Rapids, being carried on largely through the agency of the Grand Rapids Anti-tuberculosis Society, cannot be too highly commended. The Anti-tuberculosis Society is about half through with the campaign of co-operation with the churches, literary and other societies. The Grand Rapids daily papers are lending every assistance possible, abstracts of addresses are being published, all of which is helping to mold public opinion.

Dr. Alden Williams of the State Medical Society Tuberculosis Committee is taking an active part in the work. In one of his addresses, Dr. Williams called attention to the fact that the city had been generous enough to give \$25,000 for a smallpox hospital and could scarcely refuse to provide for patients suffering from a disease much more prevalent, once it became convinced of the need which exists, as shown by the fact that 130 deaths resulted from tuberculosis in Grand Rapids last year.

The Anti-tuberculosis Society has started a campaign to raise \$2,000 for the purpose of erecting shacks, continuance of district nurse visitation and the dissemination of educational propaganda. To carry out the work the following committee has been appointed: Dr. Alden Williams, George S. Boltwood, Dr. Collins Johnston, Cyrus E. Perkins, Samuel H. Ranck, Dr. T. M. Koon, John Ihlder, Dr. Ralph Spencer, Meyer S. May, Dr. William DeLano. Mr. C. N. Wright has been appointed by the society as its professional solicitor.

At the meeting of the Anti-tuberculosis Society, held Jan. 17, 1907, Dr. R. L. Kennedy, superintendent of the State Sanatorium at Howell, gave a short talk in which he predicted a very hopeful decrease of consumption if properly treated. He urged the providing of sanatoria.

The following resolution was adopted, "Resolved, that the Grand Rapids Anti-tuberculosis Society is heartily in favor of the establishment of a hospital by the City of Grand Rapids, and in the shortest possible time."



In a communication to the Board of Health, Dr. Ralph Apted, City Physician, asked the board to consider the feasibility of utilizing the smallpox hospital, now being built, for the temporary care of consumptives—temporary, because as soon as sufficient funds are forthcoming a hospital entirely for the use of consumptives will be built. Colonel Calkins of the Board of Health declares the building is merely a matter of time. It will be erected on the site now owned by the city next to the present smallpox hospital. It will not only take care of incipient cases, but will give attention to those which the sanatoria and the hospitals of the state refuse to accept.

The Kent County Medical Society is also actively engaged and will appoint a special committee on the Study and Prevention of Tuberculosis. At the meeting of the society held Feb. 6, Dr. William DeLano, City Health Officer, gave an address on "Management of Contagion from the Standpoint of Public Health." In this address the relation of the "Tuberculosis Problem" to public health was thoroughly discussed by the speaker, also by Drs. W. J. DuBois, Rowland Webb and Alden Williams.

Manistee County also reports active efforts in progress. Dr. W. E. Coates spoke before an audience of one hundred at the Manistee County Farmers' Institute held at Bear Lake, Jan. 16, 1907.

The speaker urged the necessity of the farmers taking up the problem of "Tuberculosis on the Farm." This address has already borne fruit as arrangements will be made for several papers at the next Farmers' Institute on the subjects, "Tuberculosis Among Cattle," "Tuberculosis in the Farmer's Family," etc.

The Onkama Heights Sanatorium Association, organized and conducted under the auspices of the Manistee County Medical Society for the purpose of establishing a sanatorium for the treatment of incipient and moderately advanced cases of tuberculosis and the dissemination of knowledge regarding the disease, is a practical outgrowth of the "Campaign Against Tuberculosis" carried on by the Manistee County Medical Society during the past year. The sanatorium, located at Onkama, Manistee County, Mich., is already in operation on a small scale.

It is the intention to raise at least \$2,000 to \$3,000 to be put into tents, cabins and equipment during the coming spring and summer.

The Traveling Teachers' Institute and Patrons'

Rally was addressed by Dr. W. E. Coates at Onkama, Feb. 14, Copemish, Feb. 15, and at Chief, Feb. 16.

Attention was called to the opportunities afforded the teachers of our schools in co-operating with the medical profession in combating tuberculosis, teaching the children the cause, methods of prevention and restriction of the disease.

#### Opportunities for Service.

The present session of the State Legislature affords opportunities for earnest efforts in the Anti-tuberculosis cause.

Governor Warner's message at the opening session called the attention of the Legislature to The Michigan State Sanatorium for Tuberculosis located at Howell, Livingston County.

The governor's recommendation, that the institution be granted a substantial appropriation for further equipment, buildings and maintenance, should receive the support of the united medical profession of the state.

The Committee on Legislation and Public Policy of the State and County Medical Societies should use all available means to put the needs of the State Sanatorium before the individual legislators and endeavor to secure an appropriation worthy of the state and the needs of the institution.

Dr. W. H. Morley, of Ann Arbor, introduced resolutions at the Jackson meeting calling attention to the menace of tuberculosis among dairy cattle, the present deficient laws for the protection of the public, and the necessity of so modifying present laws as to encourage the more general use of the tuberculin test by providing for a just compensation for cattle destroyed. Under present laws, the owner of a tuberculous dairy cow is allowed \$1.00 compensation where the animal is slaughtered by public authority. This meagre compensation puts a premium on concealment of the disease among dairy herds. The attention of the Committees on Legislation and Public Policy of the State and County Societies is respectfully called to Dr. Morley's resolution in the hope that early action will be taken to bring the matter before the present legislature. The importance of the menace of bovine tuberculosis has been recently emphasized through the report of the Royal Commission on Tuberculosis of England.

The report is considered to be one of the greatest importance as demonstrating conclusively that

the theory of Prof. Koch, "that bovine and human tuberculosis are quite distinct diseases," is based upon insufficient and misinterpreted observation.

To those conversant with the investigations carried on for years by our own national and state agricultural department workers, not to mention German, Danish, Swedish, and other European investigations, the conclusions of the British Royal Commission occasion no surprise or comment; they are but another link in the chain of evidence that "Bovine" and "Human" tuberculosis are primarily derived from the same species of bacillus tuberculosis, any difference existing between the two strains of the germ being due to slight biological changes resulting from adaptation of the germ to its environment.

For the Committee.

W. E. COATES, *Chairman*.

## County Society News

BARRY.

The annual meeting of the Barry County Medical Society was held at the Court House in Hastings on Thursday, December 20, 1906. The annual election of officers resulted as follows: President, Dr. C. S. McIntyre, Woodland; first vice-president, Dr. J. W. Rigterink, Freeport; second vice-president, Dr. Swift, Middleville; secretary and treasurer, Dr. J. G. McGuffin, Hastings; member of board of supervisors, Dr. J. W. Elliott, Hickory Corners; delegate to State Medical Society, Dr. G. W. Lowry, Hastings; alternate, Dr. Gallagher, Dowling.

After the election of officers, Dr. Collins H. Johnson, of Grand Rapids, read a very instructive and interesting paper on "Heart Murmurs," and Dr. F. F. Shilling, of Nashville, read a paper on "Chronic Constipation." Dr. A. W. Crane, of Kalamazoo, gave an interesting talk on X-Ray examination of the stomach and bowels, which he illustrated with stereopticon views. After the reading of the papers a very keen discussion followed; many important points were brought out. A hearty vote of thanks was tendered the gentlemen who so kindly consented to prepare such excellent papers, after which the meeting adjourned to meet again in mid-summer.

J. G. MCGUFFIN, *Sec.*

BERRIEN.

The Berrien County Medical Society has elected the following officers for 1907: President, R. C. Allen, St. Joseph; vice-president, Zilph Walker, Benton Harbor; secretary, May Beers Lindenfeld, St. Joseph; treasurer, H. C. Hill, Benton Harbor.

M. B. LINDENFELD, *Sec'y*.

GRAND TRAVERSE.

At a recent meeting, Dr. L. F. Sipher read a paper on "Measles," an abstract of which follows:

Measles is an acute infectious and highly contagious disease characterized by symptoms of catarrhal involvement and a peculiar eruption. It occurs in spasmodic and epidemic form, the latter much more frequently, and oftener in the cold months of fall, winter and spring. The contagion is communicated chiefly through the breath and mucous secretions, and the disease may recur. The period of incubation lasts from 10 to 14 days and during this time the patient may exhibit no symptoms, or may be irritable and restless, with disturbed sleep and occasional cough and loose bowels.

The invasion is marked by cough and fever and by redness of the eyes and lachrymation, photophobia, sneezing and an irritating, watery discharge from the nose, which discharge soon becomes muco-purulent. These early symptoms of severe coryza last from 3 to 5 days, before the eruption appears. Moderately sore throat is frequently present, also headache, loss of appetite, and some glandular enlargement. The tongue is furred, white—and the papillæ red. Koplick's spots, peculiar to this infection, are important for early diagnosis. This sign appears 48 hours and even 3 to 4 days before the skin eruption, preceding the conjunctivitis and is present at first rise in the temperature. The spots appear on buccal mucous membranes, not on palate and fauces; are fully developed when the eruption appears and rapidly fade thereafter.

With the fourth day, the skin eruption usually appears—first upon the face, around ears, nose and mouth and then spreads to the trunk and entire body. It is usually most copious upon the face which is swollen, dark red in color, and closely set with papules which are elevated, rounded at the summits, and feel like soft velvet to the examining finger. The face lacks that white-

ness about the mouth which is so often seen in scarlet fever. The temperature rises to a considerable height on second and third day. With the "coming out" of the eruption it remains high and the general symptoms are more marked; the cough is a prominent and annoying symptom, which depends on the catarrhal inflammation of the entire respiratory tract. Usually these symptoms continue until the fifth or sixth day, when the eruption is completed and fades in order of its appearance, followed by a fine branny desquamation. The fever rapidly decreases, the catarrh diminishes and convalescence is established. Black measles is the name given to malignant forms, in which, owing to complications, particularly pneumonia, the skin is dusky red and the eruption comes out poorly and has a bluish color.

Koplick's spots are never observed in rubella, the fever is slight, coryza hardly noticeable, and the rash usually the first thing to attract attention. This is more rapid in its extension, is paler in color and often pin head in size. The whole eruption may fade in a day or two, and the temperature rarely exceeds 101°.

In scarlet fever the invasion is abrupt and the symptoms severe. The temperature runs up to 104° or 105°, with no sign of eruption. Koplick's spots are lacking and coryza is absent. The headache is marked and sore throat distressing and the rash is different in distribution and appearance.

Catarrhal symptoms are frequently seen with variola, and during the first 24 hours, the two eruptions are similar in appearance, but in a few hours more, the eruption in variola becomes beady and the papules have a distinct elevation. Besides this the active constitutional symptoms in variola abate as soon as the eruption appears.

Uncomplicated measles is a comparatively harmless disease, and we can give a good prognosis; complicated, its death rate is high. The early and extensive involvement of the respiratory system constitutes a source of great danger, especially in weak or badly nourished children. . . . Catarrhal affections of the eyes and ears, the former eventually purulent, are common. With the laity there is generally a great indifference in regard to the dangers of this disease, and too little attention is given to care of patients and the protection of others from infection. . . . How common a thing to hear of some chronic derangement in patients we are called upon to treat as dating from an attack of measles! Otorrhea, strumous ophthalmia, enlargement or suppuration

of cervical glands, chronic diarrhea, tabes mesenterica are all recognized as liable to follow in the wake of measles. Here also phthisis must not be forgotten. Among all the eruptive fevers there is none so prone to light up a latent dyscrasia as measles. An irregular temperature in a delicate child, occurring after the eruption has faded should be looked upon with grave suspicion, and frequent careful examinations of the chest should be made to detect the first evidences of breaking down of lung tissue. Physicians should make it their eager desire to make an early diagnosis and thereby aid in preventing others from being exposed, make visits frequently enough to detect complications early, and continue in touch with the patient long enough to be positive that no sequelæ develop. When the disease runs a benign course in a person otherwise healthy, there is very little need of treatment, except hygienic. . . It is in cachectic individuals whose systems are debilitated, or when the natural course of the malady is modified or intensified by what are denominated complications that drugs are useful or necessary.

Our first effort should be a true diagnosis and then isolation as far as circumstances will permit. The patient should be kept in a well ventilated room of about 70°, the air slightly moist; direct strong light avoided. The patient is best protected from currents of air by keeping him in bed until a few days after the rash fades. The diet should be nourishing, easily digested, preferably liquid. If eruption is tardy—hot drinks and a hot bath may be beneficial. Tepid sponge baths will reduce too high temperature. Strict hygienic care of eyes, nose, and throat will do much in preventing complications. During desquamation the use of oil on the skin and warm baths are advantageous. Complications occurring should be treated the same as though occurring idiopathically.

#### Discussion.

**Dr. Holdsworth:** I should like to inquire what per cent of your cases of eye and ear diseases give a history dating back to an attack of measles. Personally, I do not find that given as a supposed cause as often as I would expect, and if any one has a case of measles this winter I would like to be shown "Koplick's spots."

**Dr. Minor:** I find that a good many mothers who bring children to be treated will say their eyes "got weak" after they had the measles; I couldn't mention the per cent.



**Dr. Garner:** How radically the treatment of measles has changed! I can remember when more than a certain amount of insipid water or some sort of "teas" was all a youngster could have to drink, and as for ventilation, why, it was out of the question. The wise grandmothers thought the respiratory troubles were not part of the disease, and every time the child sneezed or coughed another "comfort" was put upon the bed until the patient was really sick from vitiated air and too many "covers."

At the meeting on February 5, 1907, **Dr. Sara T. Chase** read a paper on "Massage," in part as follows:

The term now signifies a group of procedures done with the hands, such as friction, kneading, manipulations, rolling, and percussion of the external tissues of the body in a variety of ways, either with a curative, palliative, or hygienic object in view. It is impossible to find out the beginning of it—for historians record that massage has been practiced from most ancient times, both among savage and civilized nations, and this is not hard to account for, as almost any one, when seized with violent pain, instinctively and involuntarily seizes the painful part and attempts to relieve it by pressure or rubbing or both together. During my college days, Dr. Herdman was the only teacher who recommended this treatment, and it was nearly always in connection with electricity, so we could not estimate the relative value of each.

The use of massage has been abused by certain men and women who surround themselves with an air of mystery and profess to cure by virtue of their personal magnetism, or by powers given them by denizens of the spirit-world. Such "Doctors" and "Professors" guarantee to cure all manner of ills and their failures cause their patients to lose faith in manipulations and physicians to refrain from its practice. Massage is also used by Osteopaths who firmly deny any resemblance of their practice to its methods. They claim to cure all manner of disease by this method.

Massage not being in the curriculum in medical colleges is not familiar to general practitioners, hence its advantages for treating certain classes of disorders are not known. We must admit that to treat all manner of ills by this method alone, would take all a physician's time and strength, and would limit his practice to a very few patients a day—such a course would

not be practicing medicine. Its use is restricted mostly to hospitals and given over to nurses especially trained for its practice; but there are cases that need a simple form of manipulation which can be carried out by a member of their family under your direction, and there are cases which come to us that can be more quickly relieved by manipulations than by the use of drugs internally or externally. It is of such cases I wish to speak.

Mr. P. came to the office one evening with his face turned to one side, complaining that he had a sudden "stitch" in his neck and was unable to move his head. The muscles on the contracted side were kneaded from mastoid process to clavicle until relaxed. Then with one hand under the chin and the other under the occiput extension was made and the head turned in all normal directions. The head was forcibly turned to the opposite side so the muscles that had been contracted were stretched. One treatment relieved him and there was no recurrence.

Case 3. Mrs. L. came complaining of a severe ache and pain at the back of her neck about 7th cervical and 1st dorsal region. Had been some discomfort there for several months off and on, but now for several weeks, during which time she had been sewing, the pain had not left her night or day. She was given one treatment and had no return for nearly a year.

Case 6; June 1, 1906: I was called to see Mrs. F— who had been afflicted with sciatica since November. She was not able to lift the afflicted member so as to climb stairs and had lost much sleep because of pain, and was also troubled with twitching of the muscles about the hip. The lower back muscles were kneaded and muscles of the thigh and leg manipulated with a rolling motion. Then, while lying on one side, she was given the sidewise stretch to stretch the lumbar muscles. Then, while lying on her back, the thigh was flexed on chest and thigh abducted and adducted and the knee moved about in a circle to free circulation about the hip joint. The leg was extended and the foot flexed to stretch the sciatic nerve. This treatment was painful, and the patient made many complaints and felt sure she could not endure any more, but the effect was so favorable she sent for me again in a few days and continued for seven more treatments, when she felt she was able to assume the duties of her household. She was given eliminants, and hyoscyamine was added, which had a

good effect upon the twitching muscles. She still limps in her work, but has not been confined to the house with sciatica since the last of June.

#### Discussion.

**Dr. Holdsworth:** I should think in lumbago that would be excellent—and one sees so much of that this year. Do you find that acute sciatica yields to that treatment? It is a stubborn thing to treat. The nice thing about it you don't need any "machine," and you can relieve the patient at his home as well as at the office.

**Dr. Chase:** I have never had an acute case of sciatica to treat—during the febrile stage, etc. All mine have been in the chronic stage.

**Dr. Garner:** I must confess I feel guilty on this subject. I have so little experience in this method. I wish it were included in our college course. I believe such institutions at Battle Creek which have very elaborate outfits, and whose results should speak for themselves, are proof enough of the value of this method. I believe some of the debilitated people who come to us could be helped by massage, for it certainly tones up muscles and improves circulation. Certain cases of neurasthenia who can not afford nurses, employ osteopathic practitioners, and that is why they are so popular. I believe that while the static machine has been abused, because of the misuse, that it will help neurasthenics and relieve pain.

**Dr. Holdsworth:** I had a case of wry neck that I had no results in treating. The patient stated that in a former attack a physician had given chloroform and forcibly replaced. Another physician cured the patient by a hypodermic of morphia plunged into the muscles.

**Dr. O. E. Chase:** These cases of chronic wry neck Dr. Hamilton of New York, treats by static electricity and suggestion. He uses the electricity, but says each time, "why, you are holding your head better," etc. I believe the acute cases can be relieved by massage.

**Dr. Wilhelm:** I have had no experience with the acute cases of the nature discussed, but I believe we resort to the principles of massage when we manipulate a "caked breast," or try to increase the flow of milk by this means, and then the friction after the tub bath in typhoid—and the inunctions in the treatment of syphilis!

**Dr. O. E. Chase:** We see osteopaths getting

cases among our best people, and it seems to me they are giving their indolent muscles exercise that their possessors are too lazy to take, thus improving their general condition.

At the meeting on February 5, Dr. Sara Chase was elected delegate, and Dr. E. B. Minor alternate to the Saginaw meeting.

M. M. CANAVAN, *Sec'y.*

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#### HURON.

The Huron County Medical Society held its regular quarterly meeting January 14, at Bad Axe. There were 12 members present. Dr. D. Conboy read a paper on "Recent Studies in Blood;" Dr. W. J. Herrington described some interesting "Hospital Cases." After the meeting the members were entertained at supper by Dr. and Mrs. Herrington.

D. CONBOY, *Sec'y.*

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#### RECENT STUDIES IN BLOOD.

D. Conboy, M. D.

The purpose of this paper is to give an abstract of the work done on the blood during the last 20 years.

In 1884, Metchnikoff published his studies on phagocytosis, or the part played by the large leucocytes in surrounding, engulfing and destroying the bacteria which invaded the organism. Then appeared evident the explanation of the five cardinal points of inflammation: Color, tumor, rubor, calor et functio lesa of the older pathologists; local inflammation became the manifestation of a red-hot battle royal by the lines of phagocytizing leucocytes drawn up in defense of the host against the invading infection. The invading micro-organisms were surrounded on all sides by a deep phalanx of leucocytes, which, breaking through the capillary walls by diapedesis, offered a barrier to the foreigners, and strove to confine the infection to the point of entrance.

Many dark and mysterious problems of pathology were thereby given a clear explanation. But, as might have been expected, for some years these explanations were carried too far; generalizations were too extensive. All systemic infections could not be explained so readily. For instance, in a body dead from anthrax the arteries

are filled with anthrax bacilli; even the capillaries are filled to bursting point. In this instance and in similar septicemias the phagocytes evidently fought hard but were overpowered. But, in a case which had succumbed to diphtheria no Klebs-Loeffler bacilli are found in the blood vessels. The phagocytes certainly made their defense in the pharynx, and the bacterial toxins passed through the lines of defense and poisoned the whole system. This organism died from toxemia. In cases of recovery from the toxemia there must have been something else in the tissues to counteract the toxins. This idea led Behring to produce in 1892 his antitoxin, which neutralized the toxins formed by the bacteria.

The wonderful effects of the diphtheria antitoxins and the efforts of medical investigators to introduce antitoxins for toxemias of other diseases switched the interest of the profession from the battling phagocytes to the toxins. In the course of a very few years great discoveries were made in the power of the serum to neutralize these bacterial products. A very complex system of protective substances was found to exist in blood serum. For convenience of explanation and discussion Ehrlich formed his celebrated side-chain, or side-link, theory, consisting of receptors, amboceptors, complements, haptophores and zymophores; agglutinins, precipitins, homolysins and bacteriolysins, etc. In the study of these toxins and antitoxins the phagocytes were almost forgotten, at any rate relegated to the place of a third or fourth rate power. From 1884 till about 1892 they were considered the principal factor in protection against infection; after the latter year the phagocytes were overshadowed by the interest taken in the curative properties of blood serum and its stimulation by injections of antitoxins and attempts to produce immunity through the employment of bacterial cultures.

Now phagocytosis has again come into the lime-light of medical attention through the work of Denys and Leclef of Paris, Wright and Douglas of London, Hektoen and Ruedinger of Chicago, and Prudden, Potter and others of New York. Denys and Leclef first discovered that, before the bacteria became ingested by the leucocytes, the bacteria were first rendered inert or probably killed by something in the serum; that the leucocytes themselves were unable to capture the bacteria until they had been made hors de combat by this unknown substance.

Douglas and Wright in 1903 coined the word "opsonin" to represent this unknown factor. This term is derived from the Latin *opsono*, "I prepare food for," which aptly represents the work of the opsonins, which prepare the bacteria for ingestion by the leucocytes. This bacteriolytic substance or opsonin is supposed to be a proteid, probably a globulin, that enters into chemical combination with the bacterial protoplasm and thus destroys it and renders the microorganism suitable for ingestion by the leucocytes by a process as yet unknown, whether chemical, mechanical or electrical. The opsonic power may be increased by a stimulus from without, as by vaccination or an injection of the bacterial culture product. Wright of London takes some of the bacteria from a sore in one of his patients afflicted with chronic furunculosis or acne, and makes a culture. He then grinds and kills the germs, which, with their toxins, he injects into the patient whence they were taken. This is followed for a short while by a reduced power of phagocytosis, termed the "negative phase," which is invariably succeeded by an increased stimulation called the "positive phase," that always improves the patient's condition and often brings about a complete cure. The immunizing vaccine may confer such a strong stimulus to the phagocytosis that the leucocytes may even attack the red blood corpuscles and devour them. This seems to be the cause of the anemia in typhoid and scarlet fever. In such cases the toxin in the blood acts as the stimulus to the opsonin, which sensitizes or prepares the erythrocytes for ingestion by the white corpuscle.

These processes are not mere supposition or theory; they can be studied *in vitro*, that is, prepared or produced in the test-tube and seen on the microscope slide. Improvement in patient can even be expressed mathematically. For instance, in the ordinary course of the disease, if under the microscope the average number of bacteria taken up in a phagocyte be two, and after an immunizing injection of the culture product the average number of ingested bacteria be four, then the opsonic power of the serum is doubled, and the opsonic index is indicated by 2. This is no rare occurrence, as the leucocytes can each contain 10, 20 or 40 bacteria; sometimes it becomes impossible to count the bacteria in the white blood cell, they are too numerous.

Another interesting fact is that phagocytosis is greater in an alkaline serum. Hence, we may



conclude that in a lingering case of typhoid the reduced diet may decrease the salt in the serum and thus injure the patient's chances of improvement; it should be furnished in the soups and other liquid dietary.

An instructive fact is brought to our notice in regard to the cause of the fever in the infectious diseases. A slight increase of heat enables the opsonins to sensitize the bacteria more easily. Fever, therefore, appears to be a protective provision of Nature to aid in the destruction of the poisoning bacteria. But if the heat rises to a too high temperature the opsonins are weakened and the phagocytosis is diminished.

We are now in a position to understand why in certain diseases, mainly suppurative, leucocytosis takes place. It is the more or less recruiting of the leucocytic defenders to combat the infective bacteria, and where the leucocytosis and the opsonic power of the serum are each doubled the patient's chances for recovery are quadrupled, supposing the invading bacteria remain numerically the same.

Just as the sensitizing power of the opsonin in the serum may be so increased as to enable the leucocytes to attack and destroy the red corpuscles by taking on malignant properties to the disadvantage of the patient, so too, on the other hand, the bacteria may be so virulent that the opsonin may have no power over them. The former, as has been suggested, may be the cause of the anemia in typhoid conditions; the latter tends to bring about the patient's early dissolution.

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#### INGHAM.

The following letter has been sent to the physicians of Ingham County:

Lansing, Mich., Jan. 29, 1907.

Dear Doctor:—There can be no lagging in the medical profession of today. The command to "Keep up or get out," is ringing in our ears. This stimulus is pushing physicians to feel the need of a home Post Graduate Course. To meet this demand your Ingham County Medical Society is undertaking a series of clinical demonstrations in place of the usual program at the regular meetings, and we must have your personal help to make this course a success. The first of these will be held at our meeting in March, at which time lesions of the heart will be demonstrated, in charge of Dr. R. E. Miller. The second will

occur in May, when all forms of Tuberculosis will be considered, in charge of Dr. J. W. Hagadorn. The third will be held in September, when skin diseases will be presented, in charge of Dr. S. H. Culver. At these meetings there will be presented all the types of the diseases mentioned that can be procured. To that end the physicians in charge solicit the assistance of all physicians in the county who may have such cases. Arrangements will be made for appropriate care of patients while in the city.

Will all who have cases of lesions of the heart, who will be willing to appear before the Society, communicate at your earliest convenience with Dr. R. E. Miller, Lansing, stating the different types which you can secure, that he may arrange the clinic to the best advantage. Impress upon your patients that this will give them the advantage of a consultation of the best physicians of the county free of charge, and that their individual cases will be thoroughly discussed at that meeting.

Doctor, don't fail to help in this effort of your Society to keep the profession of Ingham county at the top. Bring with you your enthusiasm for this undertaking.

Fraternally,

L. ANNA BALLARD, *Sec'y.*

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#### ISABELLA.

The Isabella County Medical Society, at its annual meeting, February 6, 1907, elected the following officers: President, Dr. C. D. Pullen, Mt. Pleasant; Vice-President, Dr. H. V. Abbott, Shepherd; Secretary-Treasurer, Dr. C. M. Baskerville, Mt. Pleasant; delegate, Dr. P. E. Richmond; alternate, Dr. C. D. Pullen.

The Society adopted resolutions to make no old line life insurance examinations for less than \$5.00.

One new member, Dr. S. E. Gardner, of Mt. Pleasant, was admitted.

C. M. BASKERVILLE, *Sec'y.*

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#### JACKSON.

At the annual meeting of the Jackson County Medical Society the following officers were elected: President, M. C. Strong; Vice-President, F. W. Rogers; Secretary, T. S. Langford; Treasurer, E. A. Martindale. The following commit-

tees have been appointed: Program and Scientific Work, C. H. Lewis, G. R. Pray and R. G. Hendrick; Public Health and Legislation, C. G. Parnall, D. E. Robinson and E. N. Palmer; Admission, A. J. Roberts, P. I. Edwards and V. D. Farmer; Entertainment, N. H. Williams, A. E. Bulson and E. A. Martindale.

The Post-graduate work, a program of which appeared last month, is attended by nearly all the registered physicians of Jackson. The discussions are fully participated in and the plan bids fair to do a great service for the medical fraternity, ethically and scientifically.

T. S. LANGFORD, *Sec'y.*

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#### KALAMAZOO.

At the annual meeting of the Kalamazoo Academy of Medicine, Dr. W. A. Stone, Kalamazoo, was elected president, and Dr. G. T. Inch, Kalamazoo, secretary-treasurer.

G. T. INCH, *Sec'y.*

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#### Kent.

Resume of paper "Adolescence," read by Dr. Ralph Spencer, together with points from discussion that followed, at Kent County Medical Society, January 23, 1907:

Dr. Spencer opened his paper with the following quotation: "One might parody life as a stream from high mountain ranges, which coursing down through all the manifold ways from the mountain tops goes on to the sea of Eternity. Adolescence is the chief rapids in this river of Life which may cut a deep canyon and leave its shores a desert." Educational methods are like the engineer who builds a series of well devised dams to irrigate wide areas, or turn the mills of Life, so that the floods may be stored up against drought so that nothing is lost. Seepage is the waste of licensed vice. Youthful dissipation is the wreckage of a spring freshlet which wears away the dam, and makes deep gullies. The prolongation of old age, by all the methods of modern hygiene is a system of dikes which economizes waste, and finds its analogy in the ability to live out ones expectancy of years.

At about 12½ years there is a sudden increase of illness, due to impending development of adolescence. Before puberty, scrofulous and adenoid diseases are most common, and after it anemia, nervous headaches, tempermental dis-

tortions, eye diseases, etc. The present generation of young girls is weakly, anemic and nervous to an extraordinary degree. The forcing process is causing an appalling amount of invalidism. From thirteen to fifteen years great reduction in school work for both sexes, but chiefly for boys, should be insisted upon. Considering the morbid condition of adolescence, the most prominent are indigestion, disorders of the alimentary canal and especially the stomach, the rapid bone growth requires more lime, the blood needs iron and oxygen, more fats for heat, the brain more phosphorus. Sleep is to feed and build up the nerve cells which are worn away by activity. What we call hunger is the unconscious desire of every cell for the food it needs. Adolescent youth has more energy than he can expend and is subject to explosions of deportment, it is the age that hates nothing more than restraint, loves nothing better than abandon. Emphasizing this and one of the very saddest of all the aspects of human weakness and sin is onanism or self-abuse among the adolescent. Until recently, it has been met on the one hand with either prudery and painstaking reticence or treated in terms of exaggerated horror as in the "Scare" or quack doctor literature. It still requires a great degree of moral earnestness to discuss it with candor and the requisite plainness. A father should understand this to know how to control and when to advise his boy; a mother should be informed so that she may guide her daughter safely through this period. The struggle between what is felt to be right and the lusts of the flesh is always hard for sanity. Add to this, in youth, the fear inspiring quack advice and pernicious literature and you have the most pitiful of all victims.

"Lancaster" found a single New York broker who had for sale 3,000,000 confidential letters written to advertising medicine companies and doctors, mostly by youth with their hearts' blood, and under assurance of secrecy. Pathologic adolescence seems to have as causative factors anything leading toward forced civilization and away from Nature. Best treatment seems to be covered by any management tending toward more simple life and assisting on normal body growth. Delayed adolescence fortells a brighter future than early precocity.

Physicians understanding adolescent peculiarities should explain to parents and plead for more sympathy and better guidance for awkward and erring youth.

Abstract of paper read January 9, 1907, by Dr. Collins Johnston, Grand Rapids:

Organic murmurs are due to defects in the cardiac orifices or valves. Functional or accidental murmurs are not due to definite pathological conditions. Organic murmurs are usually constant but may be at times scarcely audible or altogether disappear. It is not uncommon, for instance, to find a presystolic murmur in mitral stenosis present one day and absent the next. Also in the aortic regurgitation when the heart is weak, the murmur may be inaudible only to return when the heart's power is regained.

In the examination of patients, when uncertain as to the presence of a murmur, we should always have the patient jump about a few moments to bring out a murmur which otherwise we may be unable to hear.

It is not possible to cause a development of a murmur in a perfectly normal heart by such a test. The murmurs of stenoses as a rule are better heard in an erect position, while those of regurgitation are better heard with the patient lying down. There are so many exceptions to this rule, however, that patients should be examined sitting, standing, and reclining.

As a rule murmurs are loudest at the area where they are generated. There are many exceptions to this rule, however. Mitral systolic murmurs, for instance, are sometimes much more audible above and to the inner or outer side of the nipple, than directly over the apex. It is often so difficult to differentiate between organic and functional sounds that it is unwise to rely upon murmurs for a diagnosis to the exclusion of other physical signs. Osler says that only an expert should make a diagnosis of a heart disease from a murmur alone. Functional murmurs are most frequently in the pulmonic area. They are almost always systolic. If the patient has no history of rheumatism or other acute infections, or is neurotic, or anemic, or has digestive disturbances, or vicious habits, or is addicted to sexual excesses, coffee, tobacco, excessive eating or drinking, we have some reason for thinking the sound is non-organic.

Functional murmurs may lead to hypertrophy of the heart and accentuation of the pulmonary second sound, but are usually unaccompanied by recumbent position.

In a considerable portion of cases a definite opinion should be reserved until two or more

examinations have been made. Unless one is an expert, palpation and percussion are often of more value in diagnosing heart disease than auscultation. In aortic disease the pulse is usually slow and regular. In mitral disease, myocarditis, tobacco and other habits, and in functional disturbances it is often irregular.

An irregular or an intermittent pulse does not necessarily mean organic disease. But if the pulse is *both* irregular and intermittent it usually indicates disease of the muscles or valves. All thin-chested persons, all young children, anybody after great exertion, any child with a little fever, may have a systolic murmur in the second left intercostal space. It is an every-day affair. A systolic murmur at the aortic area *may* mean an aortic stenosis but organic stenosis is exceedingly rare.

A diastolic murmur of aortic insufficiency is one of Osler's truthful murmurs, the other being a presystolic murmur of mitral stenosis.

ALDEN WILLIAMS,  
Secretary.

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MANISTEE.

Dr. W. E. Coates, of Onekama, chairman of the Tuberculosis Committee of the Michigan State Medical Society, gave a short talk on "Tuberculosis" before the Manistee County Farmers' Institute at Bear Lake, January 16th, 1907.

Attention was called to the following points:

One out of every six deaths among human beings is due to tuberculosis; 200,000 lives are lost annually in the United States from this cause; according to some authorities at least 50 per cent of mankind before reaching the age of 45 years have tuberculosis or have had it and recovered.

Tuberculosis in cattle bears an intimate relation to tuberculosis in man—we must begin the fight against the disease on the farm. Twenty-five per cent of human tuberculosis, especially among children, in the speaker's opinion, is due to an infected milk supply. Behring, an eminent German authority, claims that all cases of human tuberculosis are due to infection from milk during infancy. Medical authorities are not prepared to accept Behring's sweeping claim, but recognize the danger of milk infection.

The frequency of tuberculosis among cattle can be judged by reports from national and state experiment stations which show that approximately



1 to 2 per cent of range cattle are infected, 10 per cent of the average dairy cattle the country over have the disease, while among high bred stock the percentage runs from 50 to 90 per cent or fully 80 per cent on the average. Observation of infected cows has shown that sooner or later from 2 to 15 per cent of them will yield milk containing living tubercle bacilli, even in the absence of primary infection of the mammary glands. The "Tuberculin Test" should be more generally used; it offers a safe and effective means of diagnosis; the percentage of error in trained hands is not over 5 per cent. Where doubt exists as to the accuracy of the test, another test in three to six months will help decide. On general principles, every dairy herd should be tested at intervals of six months.

As an illustration of existing conditions, the history of an infected herd of 40 shorthorn Durham cattle in Manistee County was given by the speaker. The history, obtained from Dr. Magnus Nelson, of Manistee, covered a period of nine years, during which time numerous deaths occurred, until finally, 22 head remaining of the herd, and its offspring were slaughtered for tuberculosis.

The "Plan of Campaign Against Tuberculosis" by the Michigan State Medical Society was outlined, together with the opportunities afforded by the Farmers' Institutes of the State to take up the problem of tuberculosis on the farm; to teach the methods of recognition of tuberculosis in cattle; also the means of prevention and restriction of the disease among not only the farmer's herds, but his family as well.

The resolution of Dr. W. H. Morley, of Ann Arbor, at the Jackson meeting of the State Medical Society, directing attention to the present unjust law allowing a farmer only \$1 for a tubercular animal condemned and killed by public authorities, was mentioned, and the hope expressed that the farmers would join with the State Medical Society in securing better and more just legislation to help eradicate the disease among the herds of the State.

The co-operation of the Manistee County Farmers' Institute in the work of the State Medical Society was asked for and a cordial promise given that at the next meeting "Tuberculosis On the Farm" would be given a prominent place on the program.

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#### MONTCALM.

The Montcalm County Medical Society met at

Stanton, January 10, 1907. The weather being very unfavorable, there were but ten members present.

Dr. D. K. Black, of Greenville, was elected delegate, and Dr. James Purdon, alternate, to the Saginaw meeting.

Some of the business of the society was postponed until the next meeting, which will be held in Greenville, on the second Thursday of April.

H. L. BOWER, *Sec'y.*

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#### OSCEOLA-LAKE.

The Osceola-Lake County Medical Society held its annual meeting at the National Hotel, Reed City, January 16, 1907.

The following officers were elected: President, Dr. Thomas F. Bray, Reed City; vice-president, Dr. U. D. Barr, Le Roy; secretary and treasurer, Dr. D. S. Fleischhauer, Reed City; delegate, Dr. E. L. Heysett, Baldwin; alternate, Dr. G. T. Fields, Chase.

D. S. FLEISCHHAUER,  
Secretary.

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#### OTTAWA.

At the December meeting, the following paper was read:

#### PNEUMONIA—ITS IMPORTANCE AND TREATMENT

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T. G. HUIZENGA,  
Zeeland

Pneumonia is an infectious inflammation of the lungs due to a specific organism, the micrococcus pneumoniae, which produces a potent poison affecting the whole system and very often results in death. It is impossible to do justice to so vast and important a subject in one paper and we shall therefore consider only two or three phases which have a practical bearing on the subject.

First we desire to impress you with the importance of this subject. For this purpose allow us to refer to our vital statistics from which we gain some very important information. They tell us, for example, that in former years pneumonia was third, then second, and now is first, as the greatest single cause of death in Michigan, and this is true of other localities as well. The sta-

tistics for Michigan show that during a period of six years there were reported 15,111 deaths from pneumonia and 13,470 deaths from tuberculosis. The deaths due to pneumonia equal those due to meningitis, typhoid fever, diphtheria, whooping cough, scarlet fever, measles, and small-pox combined in Michigan. Since 1860 there has been a steady increase in the number of deaths caused by pneumonia. In 1860 the deaths per 10,000 were 4.40, in 1900 19.78. Dr. A. R. Reynolds, Commissioner of Health in Chicago, states that since 1900 pneumonia has claimed 40 per cent of deaths more than all other contagious and infectious diseases combined. Some contend that the increase is due to results or complications following influenza; but remember that this increase dates back to the beginning of the records in 1860, while influenza has been with us only since 1890; and note in particular this—that during the last five decades we have become better acquainted with this disease, and can treat it more skillfully, that our materia medica has improved decidedly, that our methods for prevention must have had some bearing on this disease, but that in spite of all this, pneumonia moves steadily on at an increasing rate, claiming its victims by the thousands and raising its death rate of 4.40 to 19.78 per 10,000.

The foregoing should impress us deeply enough with the dangerous character of pneumonia, to move us to action in the study and treatment of it with more skill and in the prevention of its occurrence wherever possible.

The second phase that we wish to mention is that of the principles underlying the treatment of pneumonia—we say principles because no definite, absolute rule can be laid down for the treatment of this disease. We can not treat all cases alike; each case must be treated in accordance with its individual needs and characteristics. The first general principle in the treatment of pneumonia is to antidote or neutralize the infection that has taken place. Can this be accomplished? No, we have no specific like quinine for malaria or antitoxin for diphtheria; serums are in the experimental stage, and nothing definite has been accomplished. What then are we to do? Here, as in most cases of this nature, we should make a definite, though moderate, attempt to eliminate the infection from the system, which can be done by making use of the skin, kidneys, and especially bowels, by the free use of water and salines. Since we have no specific we must do the next best thing and that is to modify the results of the in-

fection viz., chill, temperature, inflammation, and the resulting complications as they may arise.

The period of chill can be shortened by the free use of hot water internally and hot water bags externally. Temperature may be modified by the proper use of Tr. Aconite and Veratrum Vir., but their use should not be long continued. The remedy *par excellence* is the cold pack or ice bag to the affected side and the cold sponge bath for general purposes. The use of the cold applications has given better results in my experience than all other remedies combined. Liquid guaiacol, in doses of from 5 to 20 drops, applied to the chest and covered with oiled silk may help to bring down the temperature when all other remedies fail.

The inflammatory condition is treated by the use of cups, blood letting, blisters, cotton batting jackets, and various forms of poultices, but here as in the case of the temperature, I have found that the judicious use of cold answers the purpose better than all else. And in connection with it, use what Prof. A. B. Palmer valued very highly, viz., large doses of quinine and morphine. This will eliminate any malarial complication and allay pain and cough as well as be beneficial to the inflammatory condition itself. While this treatment is carried out we should at the same time fortify our patient with a good nourishing diet, sufficient light, and fresh air.

One of the most frequent causes of death is heart failure undoubtedly due to high temperature, overworking of the right heart, and especially to the toxemia produced by the specific organism. How necessary therefore that we should be watchful in regard to this condition and use in advance such remedies as strychnine and digitalis, for here as elsewhere the "ounce of prevention" or forethought may guide you safely past the dangerous period. In a disease where heart failure is so often the cause of death, we should not wait until we meet it face to face, but we should arm ourselves and fortify the patient against the serious danger. Complications should be treated as they arise and on their own merits.

We trust enough has been said to give us a good working basis to go into the sickroom with such confidence as will inspire the patients with a lifegiving hope, and to renew our interest in this important and dangerous disease, and to stimulate us to put forth our very best efforts in order that it may become true of us what the great Physician said, "and greater works than these shall ye do!"

## SCHOOLCRAFT.

A very interesting and profitable meeting of our Society was held at the Hotel Ossawinamakee, Manistique, on January 30th.

At the business meeting two papers were read before the Society, "Medical Ethics," by Dr. J. M. Sattler, and "Certain Forms of Dyspepsias Met by the Country Practitioner," by Dr. J. M. Lipson, of Germfask.

Dr. S. S. Hackwell, of Germfask, was elected to membership. We have now but two physicians in Schoolcraft County who are not members of the Society.

After the business meeting a splendid banquet was served to the members of the Society, their wives and a number of invited guests. Following is the program of toasts:

Dr. J. M. Sattler, Toastmaster.

Our County Medical Society....Dr. T. A. Felch  
Councilor 12th District

The Pioneer-Doctor.....Dr. O. C. Bowen

Our Guests .....Dr. C. M. Livingston

The Medical Profession.....Dr. J. H. Cole

The Doctor's Wife.....Mrs. C. M. Livingston

The Country Practitioner.....Dr. C. S. Layton

The Ideal Doctor.....Dr. D. W. Roos

The Doctor in Politics.....Dr. John M. Lipson

The Medical Expert.....Dr. N. S. Campbell

It was decided that the banquet be an annual affair and held in connection with our regular January meeting.

G. M. LIVINGSTON, *Sec'y.*

## SHIAWASSEE.

The regular monthly meeting of the County Society was held at Dr. A. M. Hume's new offices in the city of Owosso January 8, 1907, at 8 p. m. Twelve members were present. Dr. C. B. Stockwell, State president, who was to have addressed the society, sent a telegram stating that he was unavoidably detained.

After the routine business of the society was finished, Dr. A. M. Hume invited the society to Conner's cafe, where a bountiful banquet was awaiting them, after which they returned to his offices and listened to an enthusiastic inaugural address by President T. N. Yeomans. A vote of thanks was given Dr. Hume by the society for his hospitality. The remainder of the evening was spent in an interesting and informal discussion of the many problems of the society and the doctor.

Dr. Yeoman's address follows:

To the Officers and Members of the Shiawassee County Medical Society:

Gentlemen—First, I wish to express to you my appreciation of the honor which you have conferred upon me; but inasmuch as I have not the words wherewith to thank you, I can only hope that during the coming year I may be able to be of some benefit to the society, and that when my successor is chosen I may leave the society better for my incumbency.

The efficiency of any organization depends to a large extent upon the efficiency of its officers, and of these, the one whose work is most essential to the well-being of the organization, is its secretary. Our society has been unusually fortunate in possessing a secretary who is both capable and conscientious, and his re-election bespeaks our appreciation of his work and our confidence in his ability.

The few words which I have to say could scarcely be characterized by so dignified a title as an inaugural address, but as we are at the opening of a new year's work, it may not be out of place to make some suggestions for the new year.

First, as to membership. We have at present a membership of thirty-nine, while we have over sixty physicians in Shiawassee County who are eligible to membership. It seems to me that it would be for the benefit of the society as a whole and for each individual member of the profession in the county, if a good share of these men could be brought into line with us.

This is of especial importance in view of the plans which the American Medical Association is now putting into practice. As you all probably know, a Council of Pharmacy has been appointed, the duty of which is to investigate the non-official remedies, and report to the profession the number and proportions of the ingredients in them, so that the profession may know what drugs they are prescribing and at the same time save themselves the expense of handling costly proprietary preparations, when they can get the same results from their own formulas.

I also wish to call your attention to a pamphlet which can be obtained from the A. M. A., which would be a good thing for every physician to have on the table in his reception room. I refer to "The Great American Fraud," by Samuel Hopkins Adams, on the patent medicine evil. The judicious distribution of these pamphlets among our patients would go a long way toward stamp-



ing out the evil of self-medication by the laity.

I would especially urge that during the coming year we seek to make our meetings as helpful as possible to each member of the Society. To this end, an especial effort should be made to get a good speaker to give a paper at each meeting, the aim being to have the subjects as practical as possible, and that one member of the Society be appointed to lead the discussion of each paper, that the Society may have the benefit of the experience of all. I would also suggest that several times during the year we hold smokers, serving a "Dutch lunch," and spend the time in getting better acquainted with each other socially, so that each will learn that the others are not so bad as their enemies have painted them. In order to accomplish these things, it will be necessary that every physician in the Society make an extra effort to be present at each meeting, and do his part for the welfare of the Society.

It would greatly assist the secretary in his work if any member of the Society who has a particularly interesting case, should report the same to him, so that he may know on whom to rely when he is looking for some one to fill up a program. In fact, it might be a good idea to set apart a little time at each meeting for the presentation and discussion of such cases.

To sum the whole matter up, let us make it our common aim during the coming year, that, "with malice toward none, and with charity for all," we shall all work together for the benefit of the Shiawassee County Medical Society, the closer union, and best interests of the medical profession of Shiawassee County.

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#### ST. CLAIR.

The officers of the St. Clair County Medical Society for 1907 are: President, T. E. DeGurse, Marine City; Vice-President, G. H. Treadgold, Port Huron; Secretary-Treasurer, A. J. MacKenzie, Port Huron.

A. J. MAC KENZIE, *Sec'y.*

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#### TUSCOLA.

The following letter has been sent out to members of the County Society:

At the last regular meeting of the Tuscola County Medical Society the following resolutions were unanimously adopted:

"Resolved, That a minimum fee of \$5 be

charged for old line life insurance examinations, and that a minimum fee of \$2 be charged for fraternal insurance examinations. Further be it

"Resolved, That any member of this society who shall make examinations at a lower fee shall be considered guilty of unprofessional conduct. And be it further

"Resolved, That the secretary be instructed to send a copy of these resolutions to the various insurance companies doing business in Tuscola County."

You no doubt are familiar with the contention that has been going on throughout the country since the old line life insurance companies reduced the fees from \$5 to \$3. This reduction coming at a time when insurance officials were getting enormous salaries, when the nation was particularly prosperous and when the cost of living was continually increasing, provokes the profession to rebel and demand at least the old rate of \$5 for making medical examinations.

As for fraternal examinations, fraternal insurance in its inception in Michigan was taken largely as a semi-charitable institution and was so promulgated. It has long passed that stage, and is now recognized as an established business, with state and district agents under liberal salaries; therefore, we are no longer under obligations to render services at less than a fair fee.

We realize that one or two in any center can prevent the accomplishment of what we believe is a fair adjustment and we hope to have your assistance in the matter. You cannot but agree that in the end the whole profession, individually and collectively, will be benefited.

The regular quarterly meeting of the county society will be held at Caro, Monday afternoon, January 14. We hope to see you there.

If you are not already a member make a special effort to become one at this meeting. We need the assistance of every physician in the county to aid in adjusting the insurance examination fee question as well as many other perplexities that are confronting us. You need the influence of the societies to get the fullest measure of enjoyment from your practice.

We hope to have every physician in the country affiliated with us this year. Do your part to realize the consummation of this hope.

C. W. CLARK, Secretary.

W. C. GARVIN, President.

The officers of Tuscola County Medical Society for the year are: W. C. Garvin, Millington, pres-

ident; R. L. King, Caro, vice president; C. W. Clark, Caro, secretary and treasurer; H. L. Morris, Vassar, delegate; R. M. Olin, Caro, alternate.  
C. W. CLARK, *Sec'y.*

### Michigan Personals

Dr. George Crile, of Cleveland, was the guest of honor at the annual banquet of the Michigan Surgical and Pathological Society, January 23, where he read a paper on "The Transfusion of Blood."

Dr. William A. Cotton, of Escanaba, has been appointed by Governor Warner to the State Board of Education, to succeed Luther L. Wright.

Dr. Edward A. Florentine has returned to Saginaw to practice medicine, after four years of practice in the upper peninsula.

Dr. A. C. Potter, member of the Harper Hospital House Staff, has resigned, to accept a position as surgeon for the Babcock Lumber Co., Georgia.

Members of the medical profession at Lansing and Sault Ste. Marie have agreed upon and published a schedule of fees, to which all will adhere in so far as possible.

At a recent meeting, the Michigan State Board of Health adopted a resolution approving the examination of the eyes and ears of children in the public schools.

The board of directors of the Light Infantry have elected medical men as follows:—President, Lieut.-Col. Julius F. Henkel, brigade surgeon; vice-president, Major Vernon J. Hooper, surgeon; treasurer, Lieut. George H. Parmerlee, assistant surgeon.

Dr. T. A. McGraw, Jr., of Detroit, is in the south, recuperating from a recent severe illness.

Born to Dr. James Hall Reed, of Battle Creek, a son, James Hall Reed, Jr., February 16.

Dr. A. W. Barrett has been appointed Professor of Psychiatry and Neurology at the University of Michigan, and will take immediate charge of these clinics at the University Hospital. The didactic work for the remainder of the year had already been provided for by the Regents.

### Marriages

Dr. Vernon Alaska Chapman was married to Miss Marjory Smith, both of Muskegon, on January 28th.

Dr. Frank C. Witter, of Ann Arbor, and Miss Lena Lyle Armstrong, of Lapeer, were married at the bride's home on Feb. 14.

Vernon Alaska Chapman, M. D., was married on January 23, to Miss Marjory Smith, both of Muskegon.

Dr. Matilda May Beers, Secretary of the Berrien County Medical Society, was married, January 26, to Mr. A. S. Lindenfeld, of St. Joseph.

### Deaths

Dr. M. W. Thacher, of Coldwater, died suddenly on February 2, of heart disease, at his home, aged 74.

Dr. Wm. E. Kennedy, of Muskegon, died on February 6, at his home; age 36.

Halsey B. Jenks, M. D., of Ypsilanti, died at his home, January 19, after a long illness, aged 64. Dr. Jenks was a graduate of the University of Michigan, 1870, and a veteran of the civil war.

William F. Hovey, M. D., of Bay City, died at his home on January 17, aged 72. He was a graduate of the University of Michigan, 1853, and a charter member of the Saginaw Valley Medical Society.

Frederick Stearns, Sr., founder of the firm of Frederick Stearns & Co., manufacturing pharmacists, Detroit, died on January 13, in Savannah, Ga., aged 75. Mr. Stearns had not actively participated in business for many years, but his name was constantly associated with the donation of collections of rare curios from different parts of the world. By his will the Children's Free Hospital of Detroit receives \$1,000.

Dr. Thomas A. Corlett, Detroit College of Medicine, 1892; died at his home in Manton, February 9, from angina pectoris, after a long illness, aged 43.

Dr. R. P. Comfort, of Nashville, Mich., died at his home on January 27, aged 58, from the effect of blood poisoning, contracted during the performance of a surgical operation. He was a graduate of the University of Michigan and of the Ohio State University.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Paravertebral Triangle of Dulness in Pleural Effusion (Grocco's Sign).**—THAYER and FABYAN discuss this phenomenon in the light of their observations on 32 cases of pleural effusion. The sign first came to general notice after Grocco's communication in 1902, though it had been noted by others, and described by Koryanyi. It consists essentially in a small triangular area of relative dullness at the base of the sound lung next to the spine, with flatness on percussion down the spine to the line of flatness, and then on the sound side in lines parallel to the spine and to the lower line of lung resonance. The apex on the spine is slightly higher than the level of flatness on the affected side, and from this point the outer border runs down at an acute angle to the base of the lung. The cause of the phenomenon seems to be that the effusion extends over the bodies of the vertebrae, crowding the mediastinum and its structures to the sound side, and compressing somewhat the sound lung. The triangle is much diminished in size when the patient lies on the affected side, and increased by lying on the sound side. It is sometimes simulated in massive pneumonia, but here there is no change on change of position. THAYER and FABYAN found the sign present in 31 of their 32 cases, and in the one where it was not found, a case of interlobular empyema, its absence was a valuable diagnostic point. They believe the sign to be a constant and important one, and of especial value in the diagnosis of encapsulated effusions.—*Am. Jour. Med. Sci.*, Jan., 1907.

**Acute Pulmonary Edema.**—RIESMAN considers this subject of enough importance to merit a separate chapter in the text book. It has been described and discussed by a number of observers, beginning with Laennec. It is associated with a variety of affections which may be considered clinically as causes. RIESMAN classifies these as: (1) Arterio-sclerosis; (2) Bright's disease; (3) Heart disease—angina pectoris, myocarditis, valvular affections; (4) Asthma; (5) Acute infectious diseases; (6) Pregnancy; (7) Paracentesis of thorax and of abdomen; (8) Angioneurotic edema; (9) Obscure conditions of doubtful causal relationship (hysteria, etc.). Many theories have been propounded as to its pathogenesis. They are classified as: (1) The periaortitic theory; (2) The cardiac theory; (3) The toxic, vasomotor theory; (4) The infectious theory; (5) The increased permeability theory. Vasomotor disturbances and a disproportionate activity of the two ventricles seem to be the chief factors. As to symptomatology, a

striking feature is the sudden onset, often when the patient is in a state of apparent health. The attack usually comes at night, with sensations of oppression and suffocation. There is intense dyspnea or orthopnea, with or without cough, and in typical cases there is copious, frothy expectoration, which may pour from the nose or throat, and reach the amount of one or two liters in one attack. Over the lungs are heard the characteristic bubbling and subcrepitant rales. The average duration is 3 to 6 hours, though it may extend to 24 hours, or be fatal in a few minutes. Death may occur in the first attack, or the attacks may extend over years, as in the reported case of 72 attacks. Diagnosis must be made from asthma, pulmonary embolism, acute dilatation of the heart, and uremic asthma. Six cases are described. In treatment, the best results are obtained from prompt venesection. Dry cupping may be of service in addition. Opinions differ as to the advisability of using morphin. Chloroform has been of great use. Nitroglycerin and stimulants may be indicated, but adrenalin should be used, if at all, with caution. Owing to the possibility of recurrence, an intelligent member of the family should be instructed as to the use of the dry cup, and perhaps of the hypodermic syringe.—*Am. Jour. Med. Sci.*, Jan., 1907.

**Accidents Following Thoracentesis: Pneumothorax; Sudden Death From Exploratory Puncture.**—SEARS confines his discussion to these two classes of accidents, and reviews the literature very briefly. With regard to sudden death after exploratory puncture, he expresses doubt as to the applicability of Russell's explanation of syncope due to afferent impulses conveyed to the medulla from irritated pulmonary branches of the vagus to all cases, and suggests the possibility of syncope and asphyxiation due to hemorrhage from a pulmonary vessel, citing a case at the Boston City Hospital. He believes that pneumothorax after tapping is more common than is generally supposed, and often overlooked when it causes no special symptoms. It is caused sometimes by an accidental reversal of the aspirating pump, but sucking in through an unguarded needle can hardly give rise to a pneumothorax of appreciable extent. In the majority of cases the cause is probably puncture of the lung, a tear in an adherent pleura, or the rupture of cavities or emphysematous bullae caused by the expanding lung. The great majority of the patients recover, though empyema and asphyxia from the sudden inrush of air have followed. Four cases are described.—*Am. Jour. Med. Sci.*, Dec., 1906.



## GYNECOLOGY.

Conducted by

REUBEN PETERSON, M. D.

**Symptoms of Cancer of the Uterus.**—The evils of procrastination in the diagnosis of uterine cancer are emphasized by J. G. CLARK, who thinks that there is little danger of a too alarmist attitude in this matter. The old notion that marked irregularities, floodings and leucorrhea at the menopause are normal in any sense should be done away with. Another fallacy with serious consequences is the hereditary theory, the assumption too common in the past, that symptoms could not mean cancer because there was none in the family history. The fact that cancer is a disease of middle life also can not be too strongly emphasized. As he shows by a chart, at least 90 per cent of the cases occur between the ages of 40 and 50. Another fact on which stress has been laid is the importance of injuries of childbirth as a causative factor. Sampson has shown that in 412 cases only 3 per cent had not been pregnant. The suggestive signs calling for an exhaustive examination in a woman between 22 years of age and the menopause are given by Clark as follows: "1. Any deviation of the menstrual period in the way of excess or an intermenstrual discharge, especially in women beyond 30 years of age. The most suspicious of these are: (a) a mere show after slight exertion, defecation or coitus; (b) increasing length of the period, even if only one day more than has been her established habit. Every woman is a law to herself in this respect. 2. An exacerbation in amount or change in character of the discharge in a woman who may have had a simple leucorrhea for months or years. Of these changes a free aqueous, acrid, or blood-tinged discharge is especially portentous. 3. A leucorrheal discharge in a patient who has never had it before. 4. Every atypical discharge in a woman after the menopause. These individuals are especially liable to cancer and should, if possible, be even more exhaustively examined. 5. Pelvic pain of more than a few days' duration should be an urgent reason for examination, although it is very seldom an early symptom of cancer. Clark insists on the use of the microscope, especially when in doubt as to the diagnosis from the early symptoms. In case of cancer of the fundus of the uterus the microscope becomes the principal diagnostic aid.—*Jour. A. M. A.*, Dec. 8, 1906.

**Radical Operation in Uterine Cancer.**—A. VON ROSTHORN, Heidelberg, while he sees hope in the researches as to the nature of cancer and recognizes future therapeutic possibilities, admits that our present resource is in surgery, and since cancer is, in its beginnings, a local disease, the importance of early operation is self-evident. We can not, nevertheless, assure ourselves of the absolute restriction of the disorder, even when first recognized, hence the need of thoroughness in operation, and he points out the advantages of the abdominal method in securing this. There are certain limitations even to this, and he goes at length into the discussion of the method by which the cancer extends itself by way of the lymphatics. In the future, he thinks, we must direct our efforts to the selection of cases that give promise of favorable results, for surgery will be of no avail when the disease has extended beyond certain limits. The system should be thoroughly built up before operating. The narcosis should be shortened as much as possible, the danger of infection during operation must be carefully guarded against, and he goes to some length into the various details of technic which he thinks will be advisable in our future work. Cases of cancer must be examined more carefully as regards their morphologic characteristics and their clinical types, and we should investigate further the conditions and phenomena of recurrence. He concludes with the following suggestions: "1. The abdominal operation is the most rational for the treatment of carcinoma of the cervix, since by its employment the most extensive removal of the parametric tissue is made possible. 2. The view that glands are involved only in later stages of the disease must be dismissed, and the fact that we sometimes find participation of the glands in the very early stages of uterine cancer has convinced me of the necessity of removing the glands in all cases, as I have always done. 3. Based on my own experience, I urgently advise it as our duty to operate in cases of recurrence which have not advanced too far for such procedures. On this account alone it is important to re-examine at frequent intervals (every eight weeks) after the primary operation."—*Jour. A. M. A.*, Dec. 8, 1906.

## PATHOLOGY AND BACTERIOLOGY

Conducted by

A. P. OHLMACHER, M. D.

**The Early Diagnosis of Tuberculosis.**

HAROLD R. D. SPITTA reports his experiments in connection with Marmorek's method for the early diagnosis of tuberculosis, which has promised to be available in such conditions as tuberculous meningitis in which the clinical symptoms are so veiled and obscure that it is often a matter of difficulty to make a definite diagnosis.

Based on his studies SPITTA draws the following conclusions:

1. That the subcutaneous inoculation of tuberculous material, followed by an intra-cerebral injection of diluted tuberculin, causes within a period of six hours a rise in the body temperature of certain selected animals.

2. That this rise of temperature is not, of necessity, influenced by or dependent on the nature, number or virulence of the tubercle bacilli.

3. That this rise of temperature varies within comparatively wide limits, is not constant, and not of sufficient uniformity to serve as a basis for diagnosis.

4. That a definite though variable rise of temperature follows the intra-cerebral injection of diluted solutions of tuberculin within a period of six hours in healthy, tubercle-free animals, and that this in some cases is equal to the rise of temperature which follows the injection of tuberculous matter and tuberculin, but in the majority of instances is several tenths of a degree C. less.

5. That the operation of trephining has no influence on the causation of this rise of temperature.

6. That the normal temperature of a guinea-pig in health may vary as much as  $1^{\circ}$  C., and often  $0.5^{\circ}$  C., within a few consecutive hours.

7. That Marmorek's contention that a rise in the body heat of  $2^{\circ}$  C. or more follows the inoculation of tubercle bacilli and tuberculin within a period of six hours is by no means always observed, even when virulent tubercle bacilli are present in large numbers.

8. That in its present state of development the method suggested by Marmorek is unsuitable for routine diagnosis for early tuberculosis.—*The Journal of Pathology and Bacteriology*, Volume XI., No. 4.

**The Distribution of Spirochaeta Pallida in the Tissues of Congenital Syphilis.**

The very beautiful preparations of spirochaeta pallida which SCHULTZ has obtained and on which his report is based were the result of applying Levaditi's method. This procedure consists, in brief, of the silver nitrate impregnation, in bulk, of formalin hardened tissue, followed by reduction by means of pyrogalllic acid. The tissue is then imbedded in paraffin, the sections cut and

stained with Giemsa's stain, or toluidin blue. This is the method that we have used in our work. It gives most satisfactory results and beautiful preparations. Levaditi and Manouélain's later and more rapid process, in which pyridene is added to both the impregnating and the reducing solutions, seems to be better for fresh tissues removed during life, but less satisfactory for autopsy material. In our experience, counter staining with toluidin blue gives better preparations than does Giemsa's stain. By this method the nuclei are stained green. The cytoplasm and intercellular substances take varying shades of brown. The spirochaetae are colored a uniform deep black. They appear considerably thicker than when stained with Giemsa's stain. They are easily seen with a four ocular and a one-twelfth-inch immersion objective, and, after the eye has become accustomed to them, may even be found with a high dry objective. In the silver impregnated tissues the organisms retain their characteristic short, close spirals and cannot be mistaken for normal or pathological tissue constituents. In certain cases the spirals are less close than normal and more irregular, while the thickness of the organism is considerably increased.

The autopsy material from two infants with congenital syphilis formed the material studied, and from which SCHULTZ concludes as follows:

The two cases here reported confirm the findings of Levaditi, of Buschke and Fischer, of Mucha and Scherber, of Herxheimer and Opificius, of Gierke, and of Paaschen.

In sections the organisms have the same characteristic morphology that they have in smear preparations.

*Treponema pallidum* (spirochaeta pallida) bears a definite relation to the lesions of hereditary syphilis.

It is, to a marked degree, an intracellular parasite, glandular epithelium being particularly vulnerable.

The connective tissue new-formation, so characteristic of syphilis, is due in part to this destruction of parenchyma cells, in part to a stimulation of the connective tissue. In those cases of congenital syphilis in which the mother is diseased, infection occurs by way of the placental circulation. Multiplication of *Treponema pallidum* occurs chiefly in the perivascular lymphatics and within the tissues themselves; not within the larger blood vessels. The peri-arteritis, which occurs in syphilis, is due to this perivascular localization of the organism. The protozoan nature of the organism has not been proven. It does, however, appear probable.—*The Journal of Medical Research*, Vol. XV., No. 3



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

C. W. EDMUNDS, M. D.

**Effect of Potassium Iodide on Arterio-sclerosis.**—CUMMINGS and SROUT have carried out a study of the effects of potassium iodide upon the arterio-sclerosis which is produced experimentally in animals by the injection of adrenalin. In one series of animals, adrenalin alone was given and these all showed post mortem sclerosis of the aortas.

In series number two, potassium was given at the same time as the adrenalin and at autopsy the arteries showed no signs of disease.

In the third series, the potassium iodide was withheld until such a time as sclerosis would probably have developed from the adrenalin. These animals all showed extensive valvular disease.

While the experiments were too few in number to draw any absolute conclusions, they seem to indicate that while the iodide may prevent sclerosis, it has no curative effects, if the disease is once established. Their results therefore seem to confirm those of earlier writers.—*Uni. of Penn. Medical Bull.* V. XIX., p. 101.

**Chloral in Scarlet Fever.**—ROYER reports the results obtained in the Municipal Hospital of Philadelphia by the use of chloral hydrate as a routine measure in 800 cases of scarlet fever, and contrasts them with 756 cases treated by the usual remedies. The chloral was given in doses sufficient to cause light somnolence and in such amounts it did not appear to cause circulatory depression. ff

The beneficial effects of the drug were seen in a great improvement in the nervous symptoms, which it relieved better than any other remedy. It also allayed the itching of the skin which is often very annoying. When given as a routine during the febrile period and for some days after, postfebrile nephritis appeared to be less frequent.

ROYER believes that the results obtained would justify a more extended use of chloral in the treatment of scarlet fever.—*Therapeutic Gazette.* V. XXXI., p. 3.

#### Treatment and Prophylaxis of Influenza.

SIR WILLIAM BROADBENT recommends quinine on the first invasion of influenza. He says he usually prescribes one drachm of ammoniate quinine and two drachms of liquor ammoniae acetatis every hour, for three hours, and then every four hours. In fulminating attacks accompanied by coma, he gives quinine hydrobromate in large doses and in this way has relieved the unconsciousness.

As a prophylactic measure during the prevalence of an epidemic, he orders two grains of quinine daily. The results obtained seem to justify its use, although it does not act as an absolute prophylactic. BROADBENT mentions some interesting examples occurring among large groups of persons apparently all equally exposed, in

which those taking the quinine escaped the disease while the others were attacked.—*Practitioner.* Vol. LXXVIII, p. 13.

**Silver Salts in the Treatment of Gonococcic Conjunctivitis.**—DE SCHWEINITZ in a valuable article on the subject gives the results of his experience with the various silver salts.

He considers nitrate of silver (2% solution) the best remedy we have when properly applied. This is best done by means of a cotton mop, the conjunctiva being irrigated both before and after the application of the silver solution.

Protargol, he does not think possesses a single advantage over the nitrate and it is not nearly as certain in its action. He has given up its use entirely.

Argyrol while being perfectly bland and non-irritating, is not to be relied upon alone, but may be used in conjunction with silver nitrate. Any good effects from this drug, he thinks, are due to its power of diffusing into all the folds of the conjunctiva and mechanically floating out the pus. It must, therefore, be constantly applied in order to keep sufficient of the solution in the sac. DE SCHWEINITZ describes this as the "immersion plan," which is only to be used in conjunction with the nitrate.—*Therapeutic Gazette.* Vol. XXXI, p. 4.

**Vascular Depressants.**—Among the various drugs used to lower blood pressure, SOUNDBY prefers erythrol tetranitrate, which possesses the great advantage over nitroglycerin that its action is much more prolonged. The effects of a single dose will last for about four hours and there are rarely any unpleasant symptoms, although in some cases its administration is followed by headache, which may be severe enough to necessitate the withdrawal of the drug. SOUNDBY usually gives it every four hours, while the patient is awake and sometimes combines it with digitalis or some of its purer preparations, such as digitaline.

Nitroglycerin has proved a valuable drug in cases of advanced heart disease in which there were symptoms of an anginal character. He has such patients carry a small vial containing two or three minims diluted with a small amount of water all ready for use. He prefers such a method to the use of the tablets, which he has found were very uncertain in their action.

The value of potassium iodide in combination with other cardiac remedies probably depends upon its action as a valvular depressant.

Belladonna plasters, at times, will relieve cardiac pain, but they are inconvenient and dirty.

Timely bleeding is the most efficient and rapid method of relieving the burden of the heart, but it cannot be repeated except at long intervals. It will, however, occasionally tide a patient over a critical period. *Bri. Med. Jour.*, No. 2390, Oct. 20, 1906.



## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Seventeenth Annual Report of the New York Commission in Lunacy.**—Although state documents have commonly that somewhat forbidding aspect which attracts but few to open and scan their pages, this one presents much that is of interest to those at all desirous of keeping in touch with modern institutions for the insane.

It is well known that, in spite of their high character (and the New York Asylums are the parents of our Michigan institutions, for Dr. VanDusen came from Utica to open the first Michigan Asylum at Kalamazoo, in 1858) their level has not been above the reach of the turbulent waves of "politics." It is not long since political agitators brought about the abolition of the efficient local boards of managers for each institution and attempted to more concentrate the management of the various asylums. Now the pendulum has again swung the other way, and the insanity law has been so changed that each hospital again has its local board, composed of citizens residents in its district, two of whom should be women, and it is gratifying to note that the State Commission in Lunacy, which exercises a general supervision of all of the hospitals, considers that under this plan these institutions receive more careful personal observation on the part of the hospital boards than at any other time.

This volume is of special interest in that it presents to the reader the interests of all of the different institutions, something of their interrelations and general plan of management.

With the advent of the Psychopathic ward at the University (Michigan), in charge of an expert pathologist who is to give periodically instruction to the assistant physicians of the Michigan Asylums, Michigan still more closely follows the plan upon which the New York Hospitals are managed. The scientific side of their work is especially inspired from the Pathological Institute under the directorate of Adolf Meyer, an indefatigable and enthusiastic worker who has as his assistants a Chief Associate in Neuropathology, Associate in Clinical Psychiatry, Photographic Assistant, Assistant for Autopsies, etc., etc.

It is of sociological interest to know how a great state provides for its insane, and it is worth while to note that the Empire State provides for this class of its unfortunate thirteen institutions with a total capacity of 23,525, but with an actual number of patients of 25,432, showing that the State of New York faces much the

same general conditions as those obtaining in Michigan.

The Pathological Institute has not only given instruction in pathological technic, but it has sought to systematize generally the scientific work of the hospitals, has encouraged the use of common forms and the more scientific study of all clinical material.

This results not in the mere accumulation of ultra-scientific data, but redounds to the practical benefit of all so unfortunate as to be patients, in the more thorough, earnest and purely scientific study of their cases. Psychiatry in these days is taking long strides forward and New York is in line to be abreast of the best. May we not congratulate ourselves that Michigan follows closely in her wake?

The medical profession should take a more active interest in the work of our Asylums than is often manifested and it is noteworthy that the need has been felt of fostering a closer and more intelligent relation between the practicing physicians of each district and its hospital. Such a promotion of closer relations would do much to break down prejudices and cultivate broader and more intelligent views of the work and needs of the asylums.

Much is found in this report of scientific value. New remedies and new methods of treatment, fresh air treatment, typhoid treatment, and hydrotherapy are here discussed.

The vexed subject of classification is discussed both by the Director of the Pathological Institute and by the late Dr. Dent, Superintendent of the Manhattan Hospital, in an earnest, thoughtful and scientific way. While they are compelled to report a table of statistics conforming data to: "Alcoholic Insanity; General Paralysis; Senile Insanity; Epilepsy with insanity; Imbecility, idiocy with insanity; Other psychoses; and Not insane,"—there is much rebellion and "carping criticism" among those who have to "slavishly follow" so utterly inadequate a classification as the foregoing; yet Dr. Meyer frankly admits that "an absolutely clean-cut classification is not to be expected, unless the number of groups be made unwieldy and therefore an obstacle," yet he earnestly takes up the effort to work out a classification which shall at least make for a better scientific basis of the study of mental diseases.

Altogether, this report shows so much high-minded earnestness in the study of the insane and their management as to be well worthy of thoughtful perusal.

## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**Examination of the Throat in Chronic Systemic Infections.**—GOODALE considers the lymphoid ring as a portal of infection for cervical adenitis and infectious arthritis. In a series of cases he was able to demonstrate that tubercular cervical adenitis may exist in association with tuberculosis of the tonsils, with or without visible changes in these structures. He shows also that a form of cervical adenitis occurs which is accompanied by distinct enlargement and subacute or chronic inflammation of the tonsils, and disappears after excision of the latter. In the first case it is reasonable to suppose that the bacilli penetrate from the tonsil, in the second that absorption of toxins generated in the tonsils takes place, the removal of which affords immediate relief. Bacteria without doubt enter through the lacunar epithelium, the crypts constituting more or less sheltered harbors. It is chiefly in tonsils undergoing rapid proliferation, or those which have already obtained a considerable degree of hypertrophy that the loose character of the epithelium of the lacunae is marked. Retention of detritus in the lacunae is favored by cicatricial contraction around the orifices, adhesions to the pillars and by retrograde metamorphosis. These two factors, loose lacunar epithelium and retention are the two chief factors predisposing to systemic infection. Infection may enter through a tonsil, even though it is normal in appearance, provided the micro-organism is present in the throat and suitable predisposition exists on the part of the host. Non-tubercular cervical adenitis from toxin absorption would theoretically be accompanied by visible alterations in the tonsils, characteristic of lacunar retention. In chronic infectious arthritis, since inspection and careful clinical examination may fail to disclose deep seated collections of detritus, it would seem wise if other points of infection can be eliminated, to extirpate the tonsils in the most thorough manner possible. *The Laryngoscope*, December, 1906.

**Congenital Laryngeal Stridor.**—LOGAN TURNER discusses the etiology of this affection, the symptoms of which, to avoid confusion, are given as follows: the infant, normal in other respects, shortly after birth begins to breathe nosily, with a croaking sound during inspiration. Expiration may be accompanied by a short croak, when the stridor is loud, but at other times it is noiseless. Occasionally there are brief intervals with no sound, but generally the noise is con-

stant during waking hours and sometimes when the child is asleep. The child's power of crying and coughing is not affected, and there is not the slightest distress or cyanosis. There is, however, marked inspiratory in-drawing of the thoracic and abdominal walls except in the mildest cases. The stridor increases in loudness during the first few months to gradually disappear during the second year of life. The author, after discussing adenoids, enlarged thymus and congenital deformity of the upper aperture of the larynx as etiological factors, comes to the conclusion that the true cause is an acquired deformity 'of the upper aperture, result of a disturbance of coordination of the respiratory movements, probably due to some developmental backwardness of the cortical structures which control them. There is a constant recurring sucking in of the soft structures which form the aperture, so that an exaggeration of the infantile type results. This type is well recognized by anatomists, the soft parts including the epiglottis being much softer and more collapsible than they are in an adult. Experiments conducted by the author on extrinsic larynges of still born infants and children up to the age of ten years, proved that by forcible inspiration of air, the lateral margins of the upper aperture of the larynx are drawn together so that only a narrow slit remains. The epiglottis could also be drawn downward and backward and the arytenoid cartilages approximated in the median line, the margins of the anterior part of the aperture remaining unaffected. The upper aperture of the larynx of a still born infant is relatively wider than that of an infant which has breathed. This corresponds with the observation that by repeated experiments the parts could be approximated permanently. The assumed form strikingly resembling the deformity figured in fatal cases. As the child grows, changes take place, the epiglottis becomes expanded, the aryepiglottic folds are separated and the aperture is in consequence broadened. In very young children the respiration is irregular in rhythm and force. There often occurs therefore, relatively sudden respiratory efforts. This is the primary factor which with the thin, lax folds of the aryepiglottic ligament produce a narrowing of the laryngeal aperture and a more or less constant condition of stridulous breathing. *Annals of Otology, Rhinology and Laryngology*, Dec. 1906.

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## Original Articles

### ABOUT SANATORIUM TREATMENT AND THE VALUE OF A STATE SANATORIUM IN THE COMBAT AGAINST TUBERCULOSIS.\*

HENRY J. HARTZ, M. D.,  
Detroit.

A sanatorium is an institution where the healing agencies of air, sunlight, and diet are put into active operation for the cure of tuberculosis. The inmates submit to discipline and constant medical supervision and receive such care as each individual case may demand in exercise, rest, and medication. The first sanatorium was erected in the middle of the last century, and today they exist in every civilized country. The construction of them has been numerous the last ten years, largely as the result of a world-wide crusade against tuberculosis. They form an important link in the system evolved by medical men, statesmen, and philanthropists for the relief, control, and, if possible, the eradication of the disease. The leaders in medicine found it necessary to ask the aid of state authorities and the people to combine against this insidious disease, since science and experience had declared that it was a communicable and preventable disease, and, in the early stages, curable. The system of restriction of tuberculosis, of which a sanatorium is an important link, consists in, first, the construction of private and public sana-

toria in the country or in favorable regions, intended exclusively for incipient cases of tuberculosis, for curative and educational purposes; second, the provision of hospitals or homes for the acute and advanced cases, in or near cities, for purposes of relief and preventing infection of homes; third, free dispensaries in larger cities with staff of visiting nurses, to reach the poor consumptive in his home, to provide proper care, food, and raiment, and urge transfer to sanatorium or hospital; fourth, municipal and state control, compelling an efficient system of disinfection in farm, village, and city homes, where a tuberculous subject has died; fifth, education of the masses by leaflets, lectures, and through the press, the distribution of printed matter by municipalities to voters, workmen in factories and stores, and the formation of anti-tuberculosis societies for educating the people and aiding the poor consumptive.

The study of the tuberculosis problem, historically and as it affects society today, is interesting. Among other things, it was shown that, while the forces of civilization are slowly working for the extinction of tuberculosis, rather than its perpetuation, it still claims many victims

\*Read before the Wayne County Medical Society, January 7, 1907.



in every class and age. No climate, no latitude, no occupation is exempt from its ravages. Favorable circumstances may retard its progress and mitigate its course, but there is no real safeguard against its onset anywhere. The death roll of all the wars of the nineteenth century is estimated at 14,000,000, and that of consumption in the same period and countries at 30,000,000. Painstaking researches at post-mortems reveal the astounding fact that seventy-five per cent of the human race have at some time during their life been infected. But it is also made clear that while the human race is prone to the disease, it does possess a resistance or a defense function, consisting of the formation of a tubercle, which holds the germs imprisoned in its center, and renders the invasion practically harmless. In addition the phagocytic properties of the blood serum and leucocytes lend their protecting influence, destroying the germs before they produce an infection. As it is, this protection is absent in many, fully 12 per cent falling victims to the disease, mostly in the prime of life. It is appalling to think that a delicate plant life, so readily destroyed by sunlight, having no motion of its own, could become so dangerous a foe to mankind. It is accounted for, partly by the fact that this delicate germ life is parasitic, that its nature was unknown until 1882, and that it had thousands of years to engraft itself unmolested. The erroneous view of the inheritance of tuberculosis made unnecessary any preventive procedure, and therefore the germs have established themselves in the deeper recesses of man and his friendly animals. It is properly designated a home disease, and a social malady, which has firmly rooted itself ever since the dawn of civilization.

Since the realization of the part played by the parasite in the production of the disease, there has sprung into ex-

istence, since 1888, a worldwide movement for its control and relief, the aim being to destroy the seed of the disease, found only in the sputum and other discharges of a tuberculous subject, and to increase the resistance of the body by more hygienic living, especially breathing of pure air. Steps were taken in 1889 in France by Prof. Bouardel to organize a national crusade. The Empress of Germany lent her powerful aid by forming a society with 8,000 members, which resulted in the building of 100 sanatoria. King Edward donated \$1,000,000 for a public sanatorium, and declared that if the disease is preventable, why not prevent it. His illustrious mother, Queen Victoria, during her reign, had unknowingly, perhaps, put into operation a most successful campaign against tuberculosis, in which the death rate was reduced one-half in 40 years, by the legislative acts which provided for the construction of better homes, with more sunlight and better sanitary surroundings. The social misery was much relieved thereby, and the economic conditions, too, were improved, enabling the workmen to obtain better food, drink, and clothing. In consequence the people became more resistant against the disease. Those countries that deal with tuberculosis in an intelligent way, that include strict preventive methods, have recorded a reduction in the death rate from 20 to 40 per cent, during the last 20 years. For instance, in Sweden, Denmark, Germany, and England, while building sanatoria on the best chosen sites in the country, they also provided well-equipped consumption hospitals near large cities for advanced cases. This division becomes necessary, for a sanatorium that becomes filled with more or less advanced cases, for the most part bedridden and on their way to the grave, offers but little promise of a cure to the incipient case. The fruits of the campaign against

consumption have positively been gathered in Prussia, where the mortality rate from 1886 to the present is less by one-third. It remained the same the preceding ten years from 1876 to 1886. It is estimated that 20,000 lives have been saved in Prussia from 1886 to 1906. In Stockholm, where the advanced cases are segregated in hospitals and the end of their lives made comfortable, a reduction of 38 per cent in the death rate for the last 20 years is shown. In England there has been recorded a gradual reduction in the number of the dead from tuberculosis, largely due to the consumption hospitals, of which Brompton is a type which was established during the Victorian era. Such a hospital not only affords relief, but prevents infection to members of homes, especially the children. In France, Austria, Ireland and Scotland, where strict municipal measures, sanatoria and hospitals were not provided, the old mortality remains. New York City, with beds for 1,000 consumptives, and the most radical municipal regulation, claims to have lessened the death rate fully 30% in the last 20 years. In other cities, that have provided hospital accommodation, similar results are achieved. Chicago has 400 beds for its tuberculous, Boston 250, St. Louis 100, Cincinnati 100 and Cleveland 50.

It is to be hoped that in justice to the sadly afflicted, suitable provision may be made for consumptives in the advanced stage in every city and every county of the state of Michigan. It is the duty of the medical profession to stir the public conscience, to call attention to the ravages of tuberculosis, and to the effective methods of prevention and cure. Sanatoria aim to cure incipient cases, while hospitals serve advanced cases by making their end comfortable and preventing the spread of the disease. The isolation of advanced cases is as necessary for the protection of public health

as the prevention of contamination of drinking water and milk by typhoid germs. Through knowledge has come responsibility and hope, and through both, action. These are the words uttered by Dr. Trudeau, the American pioneer in sanatorium treatment, and the first president of the National Association for the Study and Prevention of Tuberculosis. Afflicted with tuberculosis, he sought arrest of his disease in the Adirondack mountains in 1873. In 1884 he established the cottage system of sanatorium, which has grown to large proportions. His institution has records of many cures, some of the patients discharged 15 years ago being still well and active. Trudeau was influenced to seek restoration of health through the experience gained in the open air cure, by Dr. Bodington, of England, and Brehmer of Germany. Bodington published an essay in 1841 on "The cure of pulmonary consumption on principles, natural, rational and successful." He prescribed a generous diet, fresh air day and night, exercise, symptomatic treatment, daily watchfulness by a medical superintendent. He insisted that cold is never too intense for a consumptive, and that the air in the room should be as fresh as the outdoor air. He claimed to have succeeded in producing a number of positive cures. Attracted by Bodington's essay, Brehmer established in 1854 the sanatorium at Gerbendorf, and announced the following principles of open air treatment. At this time tuberculosis was regarded as an inherited disease, and therefore, Brehmer's conception of the cause of tuberculosis was incomplete, yet his system of treatment proved successful. He believed that, first, life spent in the open air cures and gives immunity to tuberculosis; second, necessity of complete freedom from any debilitating or disquieting influences to mind or body; third, hill climbing, under medical supervision, as an exercise

when condition of patients permitted; fourth, abundant dietary of milk, fatty foods, meats and vegetables; fifth, various hydro-therapeutic measures to stimulate the circulation and give tone to the vaso-motor system of nerves; sixth, constant and unremitting medical supervision.

At the time of his death, there had been established in Germany some 400 sanatoria for the rich, the middle class and for the poor class. Thus arose the idea of treating tuberculosis in sanatoria on hygienic and dietetic lines. It has for its object to build up the resisting forces of nature against attack by any germs, through the rational use of air, sunlight, food, rest, exercise, and medicinal agents. A sanatorium is two-thirds school and one-third hospital, superintended by a medical man of good personality, who can inspire the patients to fight for recovery of health. The mission of these institutions, aside from being curative and humanitarian, is also educational to the public in the prevention. The patient, once restored to health, is armed with a practical training to teach others in his community, and is possessed with knowledge how to care for himself against relapse. Sanatoria are training schools for students and medical men, in the recognition by physical examination of the early stages of the disease, before ulceration and coughing have set in. Thus they serve the triple purpose of prevention, education and treatment.

The medical profession of the state of Michigan, recognizing the value of such an institution, had petitioned the legislature for the last six years for an appropriation to erect and equip a state sanatorium. At the last session, the committee of the State Medical Society received the co-operation of the senate and house of representatives, through the personal assistance of Gov. Warner, \$30,000 being appropriated for that pur-

pose. An unpaid board of trustees was appointed, in accordance with the bill, to supervise the founding of the sanatorium. The site chosen was donated by the citizens of Howell, and consists of 190 acres; its location is near Howell, 1,100 feet high, with the requisite woodland, water supply, and porous soil. The state sanatorium is intended for that large dependent class, who are ill with beginning tuberculosis and often struggle for an existence at the same time. An universal charge of probably \$4.00 will be made for each patient per week, which the patient, city or county, or charity organization may pay. The remaining sum necessary to defray the cost of maintenance, will be borne by the state. Only beginning cases will be received with limited lesions, who for the most part are able to take exercise, and can take the outdoor treatment. The sanatorium method of treatment is one of common sense. The aims in a sanatorium differ from those in a hospital, in that the patients are given an abundance of air and light, the best of food stuffs, regulated rest and exercise, and such medicines and care as their individual constitution demands. The daily routine is one of gentle discipline, each patient receiving attention from the doctor in charge. The regulations for conduct of patients consist of forty distinct rules, framed entirely for the best interests of all, aiming at physiological living and the prevention of the spread of the disease. Patients, upon entering the institution, are placed in the infirmary ward, and are given from one to three weeks' rest in bed, during which time their condition is ascertained. If the temperature is found to be below 99.5 degrees, and in absence of any tendency to hemorrhage or uncomfortable shortness of breath, exercise in a mild degree is allowed, which is at once restricted or countermanded, when temperature mounts higher than 99.5 degrees. During this



period rest out of doors, in a reclining chair, is ordered. They are required to spend from eight to ten hours in the open air daily. In winter they are protected from the cold by the use of appropriate wraps, hot water bags, and a reclining chair to keep the feet off the ground. Immediately, upon the appearance of pink or blood streaked sputum, pleurisy, or any other complication, the patient is transferred to the infirmary ward, there to remain until his condition again warrants his following the regular routine. With bed screened from draughts, the patient sleeps with windows open; should he experience any difficulty in keeping warm, double mattresses, hot water bottle, woollen leggings, or flannel sheets will usually render him comfortable. A person trained in food preparation is in charge, giving attention to quality and proper cooking, and to the detail of serving at proper temperature. The diet is modified, according to the individual needs, and generally given five times during the twenty-four hours, milk and eggs being given between meals. The diet should be liberal, but not forced, sufficient to replace the waste and build up the body, without embarrassing the functions of digestion and elimination. Exercise is much like a double-edged sword, during the fever it is forbidden; it becomes of great value with established convalescence, and then only under supervision of the physician. The heating facilities will permit of bathing in warm atmosphere. Upon rising, the patient takes at first a moderately cool sponge bath, followed with friction towel until the skin is red. Shower or needle baths are used for stimulating nutrition and increasing the resistance to taking cold. Patients retire at nine o'clock, and remain in bed, to rise at 6:30, allowing nine and a half hours for sleep. Personal hygiene is strictly insisted upon, the use of mouth washes and bathing, the use of

tooth-brush before and after meals, frequent cleansing of hands and nails, removal of beards and mustaches. In the light of pathology and bacteriology, the hygienic and dietetic treatment of tuberculosis is valuable in assisting fibroid encapsulation of the germs, by stimulating cell proliferation. It has but little, if any, effect upon the cheesy tubercle itself, it probably does not eradicate it, but aids in the production of a firm capsule around the diseased area. Rest is valuable in preventing extension of the inflammatory changes of the lung tissue around the tubercle, which, owing to its weakness, is susceptible to acute inflammation, and then frequently ensues the real process of consumption or mixed infection. The sanatorium treatment could be given at the home of the patient by any practitioner, but is attended with difficulty. A community of tuberculous individuals in the same stage of the disease, who have received an education in the general method of treatment, are an educational force to the new arrival, of great power, which can not be had in the home. It is a long and slow process of getting well and keeping well, and patients must be educated to realize the necessity for an entire change of environment, of vocation, and of continual, careful, attention for years to come, with some form of fresh air living. The sanatorium method may be carried out in detail by the physician in the home of the patient, provided the patient has sufficient determination. The home must be in a dry, healthy and airy place, free from carpets, curtains and dust, strict discipline of doctor and nurse is to be maintained, and suggestions of kind, but meddling friends refused. The patient by himself when everything is done, will miss the hopefulness, which comes from the companionship of those who are daily improving, and who are full of confidence. Obedience of the patient is necessary in

the matter of exposure to pure air, which should never be breathed a second time, its action is not only stimulating locally upon the tubercle of the lung, but general throughout the blood. The local effect is marked upon the cough, it becomes loose, the finer bronchial tubes become empty, and permit of freer aeration of the blood. Respiratory exercises aid in this oxidizing process, and should be encouraged when the temperature justifies their use. The dry and rasping cough of homes is absent in sanatorium life, in fact about 75 per cent of the cough of a consumptive is controlled by the will, all making the same effort, only that cough being permitted which brings up sputum. Perfect sanitation is necessary in the treatment of consumption, coupled with skilled alimentation, which is seldom obtainable in a home. A tuberculous subject with fever differs from one having other febrile disturbances, in that he is unwilling to assume the recumbent position, and often desires to work. It is likely that tuberculous toxins are falsely stimulating to the nerve centers, it is therefore difficult to make them rest in their home. In a sanatorium this is more readily enforced. Catarrhal affections are usually absent in a well conducted sanatorium, the purity of atmosphere excludes irritating substances, such as smoke, dust, and germs, and the respiratory passages are better nourished, as a result of better food and more hygienic living. In summing up the various factors, having direct bearing upon the cure of tuberculosis, and giving their value in terms of per cent, it is estimated that a contented mental attitude of the patient amounts to 20 per cent, pure air 20 per cent, food 20 per cent, medical supervision 30 per cent, and altitude (the preceding factors being equal) 10 per cent. The fever of tuberculosis in sanatoriums is treated the same as in rheumatism, and in pneumonia, by absolute rest in a

recumbent position. Experience in open air treatment shows that quiescence of the body and superabundance of oxygen are followed by improved appetite, assimilation, and gain in weight. It is during repose that oxygen is freely absorbed, especially when exposed to cool air, while the body is wrapped adequately to protect it from chill. Blood pressure, pulse rate, and temperature form a guide to the amount of exercise and rest. Exposure to winds, when well protected to prevent chilling, is not regarded as a harm; experience with patients in windowless rooms and balconies has proven its benefits. The wind sweeps away noxious emanations from body and breath and supplies new and fresh air, but exposure to a draught of a column of air traveling through small openings, is regarded as dangerous, striking, as it would, only parts of the body. While we have a specific cause for tuberculosis, there is as yet no specific cure. The method of treatment in sanatoria is the best, and based upon scientific principles of hygiene, and diet, in conjunction with remedial agents, such as Koch's lymph, guaiacol, arsenic, and oil of eucalyptol, which, aside from the antiseptic action upon the digestive tract, tend to influence stimulation of the cells and so indirectly assist in the formation of the capsule around each tuberculous area. Instructions in sanatoria are given in such a way as to appeal to the selfish interest of the patient, especially as regards the disposal of his sputum; he is taught that by careless spitting, he may reinfect himself; neither poison yourself or others by your sputum, is the terse maxim. In consequence all the inmates watch each other and report any delinquents. He is taught the need of fresh air in the room, and he will object to anyone sharing it with him, on his return home. Another maxim reads: Live in the open air, and never rebreathe the same air, all the hours, of



all the days of all the years. The constant open air life is possible only in a few sanatoria that are located in the sunny region of New Mexico and have, at the same time, additional value of altitude, but the advantages thus gained are often counteracted by homesickness. High altitude is of more value to the young with undeveloped chest, the rarefied air compelling more frequent respiration, which increases the strength of the heart and the muscles of respiration and the nutrition of the whole body. The same effect, however, may be obtained in lower regions by enforced and systematic exercise. It cannot be denied that the dry air in high altitudes favors the healing of cavities by abstracting therefrom a certain degree of moisture, and is indicated in hopeful cases of mixed infection. The greatest value to the patient is the early recognition of tuberculosis, even before ulceration has set in, then he may recover with sanatorium methods, 75 times out of 100, in almost any climate.

It is an accepted fact that a tuberculosis subject should seek a cure in the climate where he intends to remain his lifetime. A cure obtained in a high altitude, demands continuance of residence there. It has been often witnessed that relapses occurred when the patient returned to live in a much lower altitude. The splendid results attained by the sanatoria in lower altitude, corroborate the estimate of the value of the factors in the cure of tuberculosis, namely, that medical supervisions as to rest and exercise and the begetting of a hopeful and contented state of mind are as essential as pure air and good food, which places altitude as a secondary consideration. The Massachusetts State Sanatorium, established in 1895, is located in Rutland, near Boston, at an altitude of 1,100 feet above sea level, with a capacity for 381 patients. The trustees of the sanatorium reported last Novem-

ber the result of treatment in that institution for one year. Of the incipient cases 69% were discharged with the disease arrested or apparently cured. Of all the cases treated during one year 37% were discharged as apparently cured.

Similar results are obtainable in the state of Michigan, provided that the proper equipment of a complete sanatorium is made. It is generally held among authorities that tuberculosis could be eradicated if the knowledge we now possess could be put in active operation. A committee was appointed by the State Medical Society to secure co-operation of all county medical societies throughout the state to work against tuberculosis, a movement promising effectiveness, since it is the family physician who is in position to make an early diagnosis, at a time the patient is curable.

Dr. J. N. McCormack, of Kentucky, in a series of free lectures on Preventable Diseases given all over the United States, said in relation to the tuberculosis problem of Michigan:

"You have fully 20,000 to 25,000 cases of consumption in Michigan today, and 2,389 deaths were reported from this disease last year. There was not a case of consumption in Michigan last year, or any other year, that was not due to the fact that the persons who had the disease got the germs of the disease into their system from some previous case. There is no other way to get it. Consumption is not inherited. Even if your father and mother died from consumption, you can, at the very worst, only inherit the kind of constitution, or soil, which makes you vulnerable to the disease. You can no more have consumption in your system without having received the seed of the disease from a previous case than you can raise corn out here on a rich Michigan farm without seed. If all the expectorated matter and other infected excretions from every



case of consumption now in Michigan should be collected and destroyed until all the cases now existing have either recovered or died, there need never be another case of consumption in this State, unless it be an imported one."

Every state in the union, and also the federal authorities, have adopted exterminating measures against tuberculosis on moral and economical grounds, and if persisted in will eventually fulfill the prophecy of the illustrious savant, Pasteur: "That it is in the power of man to cause all parasitic diseases to disappear from the earth."

### Summary

Sanatoria are educational and curative institutions,

1. Where incipient cases of tuberculosis may be cured.

2. Where a tuberculous subject may be instructed how to keep well.

3. Where students and medical men may be instructed in the early recognition of the disease.

4. Where research may be carried on with remedies of approved value.

5. Where a practical object lesson may be demonstrated, which cities and

counties may duplicate for the care of acute and advanced cases.

6. Where an object lesson may be learned by physicians and the people in the sanatorium methods to be applied to patients in their home.

7. Where poor and worthy tuberculous subjects may have a chance for their lives, through aid of the state. They form an important link in the scheme for the eradication of tuberculosis, consisting of the establishment of

8. Hospitals for diseases of the chest, or proper accommodation in the general hospitals for advanced and for acute cases are an absolute necessity. They protect the community, by removing the case in its most contagious period, and preventing it from acting as a further focus of contagion in the home.

9. Establishments of free dispensaries in cities with staff of visiting nurses for relief and prevention. The formation of anti-tuberculosis societies for educational purposes, through the press and lectures, and aiding financially the poor consumptive and his family.

10. State and municipal control with efficient system of disinfection and the passage of a bill by the legislature to include pulmonary tuberculosis in the list of communicable diseases.

**Vaccination.**—Dock believes that recent epidemics of smallpox show conclusively the need of more vaccination. He says that what is needed is not statutory compulsion, but an organized and scientific procedure that shall have the confidence and support of a large majority of the people and that shall have no weak spots in any part. There is nothing, he asserts, in the fundamental law of the land to prevent the passage of safe and efficient vaccination laws, which should aim at a widespread protection by vaccination and revaccination. The operation itself should be a matter of permanent record, and a certificate from an

authorized official should be proof of the vaccination of each individual. The operators should be trained for their work, familiar with the vaccination laws, and bound to follow them. Dock would control the manufacture of vaccine by competent experts. He says that vaccination should be done at fixed times of the year when epidemic diseases are not most prevalent, in places appointed and equipped for the purpose; the individual should be examined after the operation at a time fixed by the regulations, or at once on suspicion of complication. He would permit private vaccination only under special conditions with revision of the result by a competent health officer.—*Am. Jour. Med. Sc.*, Feb., 1907.

## SOME REMARKS CONCERNING THE PATHOLOGY AND OPERATIVE TREATMENT OF CHRONIC SUPPURATIVE OTITIS MEDIA\*

R. BISHOP CANFIELD, M. D.,

Professor of Otolaryngology, University of Michigan,  
Ann Arbor.

It shall be the purpose of this short paper to consider the pathological changes taking place in the temporal bone and neighborhood during the course of chronic suppurative middle ear disease, in order to point out the necessity of careful observation of such cases and the advisability of operative treatment of certain of them. Such changes affect not only the middle ear, but also the internal ear, the mastoid, the cranial cavity and the large venous channels of the dura.

The changes that involve the middle ear may be divided into

1. Those affecting the mucous membrane.

2. Those affecting the ossicles and tympanic walls.

The most important change in the mucous membrane is a general thickening, due to infiltration and formation of new blood vessels. The surface becomes infected by the discharge and covered with suppurating granulations, varying in size from the most minute to those large enough to fill the middle ear. Many of these become pedunculated and appear in the external canal as polyps. There is also a formation of new connective tissue which appears as thickenings on the walls of the tympanum or adhesions between the ossicles or between the ossicles and the walls.

The suppurative process is almost never confined to the mucous mem-

brane, but early in the course of the disease spreads to the ossicles. These are affected in inverse ratio to the richness of their blood supply. Therefore the incus is attacked first. Bathed in pus, which flows down from the attic, either its body or its short process becomes carious, so that the ossicle is loosened. Next in order is the malleus, which as a rule loses its handle, if it does not undergo a more serious change. In this way one or more of the ossicles becomes dislocated or exfoliated and possibly appears in the discharge.

Within the tympanum the suppurative process generally spreads to the walls, with resulting destruction. A fortunate thing is that the external wall of the attic is generally the one to be affected first. Caries of a part of this wall allows the formation of the sinus between the attic and the external canal, which permits an imperfect escape of pus externally. Not uncommonly, however, the roof of the attic, that is, the floor of the middle cerebral fossa, is destroyed, the cranial cavity opened and the dura covered with pus.

When the chronicity of the disease is firmly established, that is, after the perforation of the tympanic membrane has persisted for a certain length of time, there takes place an epidermatization of the tympanum, more or less complete. This epidermis as a rule rests upon a necrotic base, which fact, together with the fact that it is continually covered with pus, causes it to macerate, desqua-

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mate, and to appear in the discharge as a peculiarly foul smelling material, known as cholesteatome.

Invasion of the labyrinth in suppurative cases is unfortunately more common than is generally supposed, and is found more frequently in those suppurations complicating scarlet fever, diphtheria, measles and the grip. It occurs less frequently after typhoid, and in syphilis and tuberculosis. Extension takes place occasionally through the oval or round windows, or through the aqueductus vestibuli, but generally through some erosion of the external or posterior semicircular canal.

The amount of interference with hearing varies within the widest limits. Extensive disease of all tympanic structures with destruction of the ossicular chain, while it may, and often does, affect the hearing very materially, may take place with scarcely perceptible damage to the auditory function. On the other hand it is not unusual to find the hearing disastrously affected in cases where but moderate pathological change can be demonstrated clinically. The loss of hearing depends largely upon the location of the pathological process; thus an akylosis of the footplate of the stapes, or the moderate invasion of the labyrinthine capsule, may affect the hearing remarkably in an ear in which objective examination shows slight change. On the other hand I have demonstrated the destruction of the posterior semicircular canal and occupation of the labyrinthine vestibule by pus in the ear, by which the whisper had been heard. The amount of hearing preserved then is no criterion of the extent or character of the pathological change.

Inasmuch as in all cases of chronic middle-ear suppuration the antrum and mastoid are involved to a greater or less degree, it becomes proper to consider the changes taking place there also. The

character of such changes depends upon the character of the mastoid, the character of the change in the tympanum, the duration of the disease, the adequacy of drainage, and the kind of treatment that has been carried out. For convenience, the chief changes in antrum and mastoid may be grouped as follows:

1. Hypertrophy of the membrane lining the antrum and mastoid cells, with its conversion into chronic granulation tissue.

2. Circumscribed or diffuse caries of the walls of the antrum and mastoid cells with or without sequestrum formation.

3. A proliferative osteitis.

4. Formation of cholesteatome.

These changes may take place singly, although it is a rule to find them all present. The proliferative osteitis attacks first these cells lying nearest the tympanum, i. e., those lying in the anterior mastoid wall in the neighborhood of the antrum. Next it attacks those lying superficially in the cortex. This fact is of the greatest clinical significance, for the sclerosis and eburnation build a wall of dense bone around the deeper structures, so that perforation externally becomes impossible. This sclerotic process progresses steadily so that it is not uncommon to find the mastoid completely sclerosed and as hard as ivory, all macroscopic evidence of cell structure being destroyed. This thickening and condensation of the bone does not affect the roof of the mastoid and antrum. In these areas the change mentioned second is the one generally seen, i. e., a circumscribed or diffuse caries, so that, with an extensive eburnation of the superficial mastoid cells, there is seen partial or complete destruction of the internal table.

The formation of cholesteatome in the mastoid is by direct extension of a similar process from the tympanum, so the



first parts of the mastoid to be involved are those lying next to the brain. This epidermis (cholesteatome) which has grown in from the external auditory canal to replace the mucous membrane of the tympanum, now grows backwards over the floor of the antrum to invest firmly its walls and those of the cells in the neighborhood. This tissue appears as a membrane, pearly white in color, and containing many of the elements of the true skin. It destroys the lining of the cells, and fastens itself tenaciously to the bone, grows into the most minute pneumatic spaces and forces its way into the microscopical openings of the Haversian systems in the pneumatic structure of the skull. It is sometimes found at a considerable distance from the original sources of the disease, either far upwards in the zygoma or backwards in the occipital bone. This epidermis, like epidermis on the surface of the body, desquamates, but bathed in pus and resting generally upon a necrotic base it desquamates more rapidly. The result is that there is formed in the antrum a mass of cholesteatome and pus. The detritus thus formed fills the antrum and makes its exit more or less freely into the tympanum and thence into the external auditory canal. It generally escapes less rapidly than it is formed. The result is that the mass collects in the antrum under some pressure. This pressure is sufficient to break down the walls of the antrum and the neighboring cells, so that the mastoid is converted into a cavity filled with a stinking mass. It sometimes happens in the presence of a moderate degree of infection that desquamation goes on slowly and in such a way as to form a true tumor, composed of layer upon layer of membrane very like an onion, and surrounded by a well-defined membrane.

This cholesteatome formation begins, as has been said, in the antrum, while

the sclerosis begins in the more superficial parts of the mastoid. The result then, especially in the adult, is the formation of the dense wall of bone, slowly increasing in thickness, which effectually shuts in the mass of cholesteatome and pus in the depths. The pressure of the growing tumor mass in the antrum slowly destroys those walls of the antrum which are the thinnest, and which therefore exhibit the least resistance, i. e., the superior and posterior. This allows infection to enter the middle and posterior cerebral fossas, and exposes the patient to such complications as meningitis, brain abscess and thrombosis of the sigmoid sinus.

When extension takes place through the floor of the antrum, as it frequently does, it generally opens into the external, sometimes into the posterior semicircular canal and so enters the vestibule, from which, by way of the internal auditory meatus, pus may reach the base of the brain. Probably the most common point of perforation internally is through the posterior mastoid wall along the course of the sigmoid sinus. Such perforation permits the formation of a perisinuous abscess upon the dural wall of the sinus and invites thrombosis of the vessel and invasion of the blood stream, with subsequent pyemia.

I have mentioned such pathological changes occurring during the course of a chronic aural suppuration in order to emphasize the fact that most of them take place in every case, that all of them are present in many cases, and that all of them may occur without the exhibition of a single symptom on account of which attention is drawn to the condition.

In order to illustrate this statement, I wish chiefly to state the pathological findings of the following 27 cases of chronic middle ear suppuration recently operated upon and at present under observation:

*Sex.* M. *Age.* 15 yrs. *Duration.* 11 yrs. *Ear.* Left.

*Cause.* Scarlet fever.

*Symptoms.* None except discharge.

*Examination.* Tympanic membrane and ossicles gone. Tympanum filled with cholesteatome. Adenoids.

*Operative Findings.* Marked sclerosis of entire mastoid except antrum. Sclerosis had been the cause of drawing the floor of the middle cerebral fossa down below its normal level, the sigmoid sinus forwards to a point immediately behind the external auditory canal. Cholesteatome filled every bit of bone not sclerosed. This case had run a course of 11 years without a single symptom of involvement of the mastoid. The very extensive sclerosis had resulted in making the cortex nearly 1 inch thick, while the inner table was paper thin, so that the purulent mass was separated from the dura by a layer of bone the thickness of a sheet of paper. Adenoid operation.

*Result.* Trace of moisture in tympanum.

*Hearing before Op.* Loud con. voice at 1 ft.

*Hearing after Op.* Loud con. voice 6 ft.

#### CASE NO. 2.

*Sex.* M. *Age.* 15 yrs. *Duration.* 4 yrs. *Ear.* Right.

*Cause.* Adenoids.

*Symptoms.* None except discharge.

*Examination.* Perforation in Sharpnell's membrane, through which pus and cholesteatome come from attic. Adenoids.

*Operative Findings.* Marked sclerosis of mastoid, while inner table remains paper thin. Cholesteatome in antrum and in small cells in the neighborhood of the semicircular canals. Incus gone. Malleus present but carious. Adenoid operation.

*Result.* Trace of moisture at tympanic end of Eustach. tube.

*Hearing before Op.* Shout.

*Tearing after Op.* Loud con. voice 2 ft.

#### CASE NO. 3.

*Sex.* F. *Age.* 22 yrs. *Duration.* Effect of disease

*Cause.* Measles.

*Symptoms.* None except discharge.

*Examination.* Tympanic membrane lacking in greater part. Small amount of cholesteatome and pus.

*Operative Findings.* Middle cerebral fossa floor very low. Sigmoid sinus immediately behind canal. Antrum filled with cholesteatome and pus. Two small openings were found through the dura into the cerebellum. The layers of the cerebellum were separated slightly in order to be sure that this tissue was indeed cerebellum. Cerebellar tissue apparently normal.

*Result.* Cure.

*Hearing before Op.* Loud con. voice. 1 ft.

*Hearing after Op.* Loud con. voice. 6 ft.

#### CASE NO. 4.

*Sex.* F. *Age.* 22 yrs. *Duration.* Effect of disease 22 yrs. ago. *Ear.* R. *Cause.* Head colds.

*Symptoms.* None until six months ago when patient began to have dizzy attacks, great amount of pain which would last several hours. Slight mastoid tenderness.

*Examination.* Effect of previous discharge. No discharge at present. Scar and perforation of tympanic membrane, with adhesions.

*Operative Findings.* Considerable superficial sclerosis. Small amount of granulations in antrum. Sequestrum size of a small bean lying free in attic. This case was especially interesting because of the fact that marked symptoms of the sclerotic mastoiditis occurred in the patient, who was hysterical. The effect of O. M. S. with dizziness and sequestrum formation in attic were sufficient reasons for operation.

*Result.* Cure.

*Hearing before Op.* Loud con. voice at ear.

*Hearing after Op.* Loud con. voice 10 ft.

#### CASE NO. 5.

*Sex.* M. *Age.* 35 yrs. *Duration* 4 months. *Ear.* Left. *Cause.* Blow.

*Symptoms.* Queer sensations in head. Some dizziness.

*Examination.* Complete atresia of the external auditory canal.

*Operative Findings.* Fracture of posterior canal wall. Antrum and tympanum filled with detritus. No ossicles.

*Result.* Cure.

*Hearing before Op.* Shout.

*Hearing after Op.* 10/35.

## CASE No. 6.

*Sex.* F. *Age.* 26 yrs. *Duration.* 18 mos. *Ear.* Left.

*Cause.* La Grippe.

*Symptoms.* Headache right occipital region. Discharge.

*Examination.* Pus in ear. Previous mastoid operation.

*Operative Findings.* Pus and granulations in antrum. Area of pachymeningitis size of a hazel nut and  $\frac{1}{4}$  inch thick.

*Result.* Cure.

*Hearing before Op.* Whisper at ear.

*Hearing after Op.* Same.

## CASE No. 7 AND 8.

*Sex.* M. *Age.* 5 yrs. *Duration.* 2 yrs. *Ear.* Both.

*Cause.* Adenoids.

*Symptoms.* None except discharge, until swelling five days ago.

*Examination.* Cholesteatome in both ears. Slight facial paralysis (R). Large subperiosteal abscess. Adenoids.

*Operative Findings.* Left. Large sub. periost. abscess filled with stinking pus and cholesteatome. Small area of pachymeningitis over mastoid roof. Perf. into mid. and posterior cerebral fossa. Perf. into articulation of the jaw. This case is another example of the extent to which a chronic mastoiditis may go without causing symptoms. Here the jaw had been opened without causing the patient any discomfort. The slight facial paralysis of the opposite side (6 weeks) is evidence of a serious mastoid condition there also, with involvement of the facial nerve. Adenoid operation.

*Result.* Cure. Cure of facial paralysis.

*Hearing before Op.* Shout.

*Hearing after Op.* 10/35.

*Operative Findings.* Right. The mastoid cortex was considerably sclerosed. The deeper mastoid cells and antrum were filled with a well defined cholesteatoma, with clearly defined wall and limiting membrane. The typical radical mastoid was performed by removing the entire mastoid cortex, the outer wall of the attic, and the posterior wall of the external auditory canal. All pneumatic structure was obliterated. The tip and the posterior root of the zygoma were removed. While obliterating the infratympanic space the face twitched. Minute cells

containing cholesteatome were followed along the course of the facial nerve as far as its emergence from the internal ear. So far in fact that a small depression was left in the wall just above the point of emergence.

*Result.* Cure.

*Hearing before Op.* Shout.

*Hearing after Op.* 10/35.

## CASE No. 9.

*Sex.* F. *Age.* 24 yrs. *Duration.* 17 yrs. *Ear.* Right.

*Cause.* Measles.

*Symptoms.* Headache. Nearly complete facial paralysis.

*Examination.* Destruction of tympanic membrane. Small amount of cholesteatome and pus.

*Operative Findings.* First operation, pus and granulations in attic. Facial nerve covered with granulations. Antrum walled off from rest of mastoid by ivory-like bone. Second operation, because of poor healing. Wall of bone broken through and mastoid found to be filled with cholesteatome and pus which lay upon large area of dura of cerebrum and cerebellum. In this case the sclerosis had walled off from the outside world the greater part of the disease process. Unable to perforate externally, the increasing tumor mass in the mastoid had broken through the superior and posterior antrum walls into the middle and posterior cerebral fossas.

*Result.* Almost complete recovery from facial paralysis. Moderate general improvement.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* Loud con. voice.

## CASE No. 10 AND 11.

*Sex.* F. *Age.* 9 yrs. *Duration.* 5 yrs. *Ear.* Both.

*Cause.* Measles.

*Symptoms.* None except discharge until 2 weeks ago when swelling over (P) mastoid with fever and evidence of being sick.

*Examination.* (R) canal occluded. Large postaural swelling extending to cheek. Cholesteatome in canal. (L) tympanic membrane gone. Tympanum filled with cholesteatome. Patient evidently very ill. Temp. 103. Pulse 110, very weak and thready. Sepsis. Adenoids.

*Operative Findings.* Right mastoid cortex paper thin with five perforations externally. Large postaural swelling ext. subperiosteal abscess



filled with stinking cholesteatome. Mastoid and antrum filled with cholesteatome. Two perforations into middle cerebral fossa. Large amount of pus lying upon the sigmoid sinus. Posterior semicircular canal destroyed and laby. vestibule filled with pus.

Left (2 mos. later). Cholesteatome filled mastoid and antrum. Inner table at all points very thin. Cholesteatome extends over cerebellum. This case demonstrates well the extent of pathological change that may take place in mastoid without causing symptoms. This patient had had a discharge for 5 years with extensive involvement of mastoid and internal ear without being at all sick. The perforations through the floor of the middle cerebral fossa, the destruction of the posterior semicircular canal with invasion of the labyrinth must have been present for a considerable length of time. It required only a head cold or attack of grip to bring out what might well be a fatal acute exacerbation. Adenoid operation.

*Result.* Cure, in both cases.

*Hearing before Op.* Shout; both.

*Hearing after Op.* 30/35; both.

#### CASE No. 12 AND 13.

*Sex.* M. *Age.* 15 yrs. *Duration.* 14 yrs. *Ear.* Both.

*Cause.* Adenoids.

*Symptoms.* None except discharge.

*Examination.* Both external canals filled with pus, cholesteatome and polyps. Adenoids.

*Operative Findings.* (Left.) Cortex very thin. Mastoid cavity filled with a tumor mass 1" x  $\frac{3}{4}$ " x  $\frac{1}{2}$ " having a well defined membrane and extending high up and far back along the superior petrosal sinus. Two openings into the middle cerebral fossa with large epidural abscesses. Perisinuous abscess  $\frac{3}{4}$ " long. Posterior semicircular canal destroyed and laby. vestibule filled with pus.

(Right) 17 days later. Same cholesteatomatous condition as on left. More superficial chlerosis and cholesteatome deeper. Vestibule opened by partial destruction of posterior semicircular canal.

*Result.* Cure in both.

*Hearing before Op.* Shout in both.

*Hearing after Op.* 10/35 in both.

#### CASE No. 14.

*Sex.* F. *Age.* 13 yrs. *Duration.* 6 yrs. *Ear.*

Left. *Cause.* Scarlet Fever.

*Symptoms.* None except discharge.

*Examination.* Adenoids. Pus and cholesteatome. Tympanic membrane replaced by scar. Sinus into antrum.

*Operative findings.* Marked sclerosis. Pus and cholesteatome in antrum. Incus carious.

*Result.* Cure.

*Hearing before op.* Loud con. voice.

*Hearing after op.* Loud con. voice.

#### CASE No. 15.

*Sex.* F. *Age.* 34 yrs. *Duration.* 31 yrs. *Ear.*

Right. *Cause.* Scarlet fever.

*Symptoms.* Discharge. Pain in side of head.

*Examination.* Retraction, scar in tympanic membrane. Tenderness over antrum.

*Operative Findings.* Bleeding bone throughout. Moderate sclerosis.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* Loud con. voice.

#### CASE No. 16.

*Sex.* F. *Age.* 18 yrs. *Duration.* 13 yrs. *Ear.* Both.

*Cause.* Measles.

*Symptoms.* None except discharge.

*Examination.* L. pus and cholesteatome. R. pus and cholesteatome. Great destruction of M. T. Adenoids.

*Operative Findings.* Sclerosis. Chol. in antrum. Malleus carious. Post.  $\frac{1}{2}$  of hor. semicircular canal and all of posterior semicircular canal gone. Adenoid operation.

*Result.* Cure.

*Hearing before Op.* 6/21.

*Hearing after Op.* 6/21.

#### CASE NOS. 17 AND 18.

*Sex.* M. *Age.* 10 yrs. *Duration.* 1 yr. *Ear.* Both.

*Cause.* Measles.

*Symptoms.* None except discharge.

*Examination.* Adenoids. (Both) pus, cholesteatome and polyps.

*Operative Findings.* Left, much cholesteatome throughout.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* 15/35.

*Right.* Cholesteatome, pus, and adenoid operation.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* 15/35.

#### CASE No. 19.

*Sex.* M. *Age.* 23 yrs. *Duration.* 17 yrs. *Ear.* Right.

*Cause.* —

*Symptoms.* None except discharge.

*Examination.* Tympanic membrane gone. Pus and cholesteatome.

*Operative Findings.* Sclerosis, cholesteatome in depths.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* Loud con. voice.

#### CASE No. 20.

*Sex.* F. *Age.* 12 yrs. *Duration.* 10 yrs. *Ear.* Left.

*Cause.* —

*Symptoms.* None except odor and discharge.

*Examination.* Foul pus and cholesteatome. Adenoids.

Adenoid operation.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* Loud con. voice.

*Operative Findings.* Large amount cholesteatome.

#### CASE No. 21.

*Sex.* M. *Age.* 14 yrs. *Duration.* 10 yrs. *Ear.* Right.

*Cause.* —

*Symptoms.* None except odor and discharge.

*Examination.* Large amount of pus and cholesteatome.

*Operative Findings.* Left. Foul cholesteatome. Pol. Large amount of cholesteatome. Adenoid operation.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* 5/21.

#### CASE No. 22.

*Sex.* M. *Age.* 22 yrs. *Duration.* 17 yrs. *Ear.* Right.

*Cause.* Measles.

*Symptoms.* For two months headache, dizziness and staggering, vomiting.

*Examination.* Sits head bent to left, not interested. No pain. Answers slowly. Vertigo. Romberg. Staggers to right.

*Operative Findings.* Foul cholesteatome throughout mastoid which is of large size, perforation through horizontal semicircular canal.  $\frac{1}{8}$ " in diameter. Vestibule filled with pus.

*Result.* Cure.

*Hearing before Op.* Shout.

*Hearing after Op.* Loud con. voice.

#### CASE No. 23.

*Sex.* F. *Age.* 39 yrs. *Duration.* 19 yrs. *Ear.* Right.

*Cause.* —

*Symptoms.* Headache, anemia. Discharge.

*Examination.* Scar, pus, cholesteatome.

*Operative Findings.* Complete sclerosis. Cholesteatome in antrum and small cells of neighborhood.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* Loud con. voice.

#### CASE No. 24.

*Sex.* F. *Age.* 17 yrs. *Duration.* 12 yrs. *Ear.* Left.

*Cause.* Adenoids.

*Symptoms.* Two days sick. Headache, fever.

*Examination.* Cholesteatome, pus. Adenoids.

*Operative Findings.* Cholesteatome, pus, moderate sclerosis superficially.

*Result.* Cure.

*Hearing before Op.* 1/35.

*Hearing after Op.* 10/25.

#### CASE No. 25.

*Sex.* F. *Age.* 43 yrs. *Duration.* 37 yrs. *Ear.* Left.

*Cause.* —

*Symptoms.* Headache, dizziness. Occasional unconsciousness.

*Examination.* Pus and cholesteatome.

*Operative Findings.* Complete sclerosis of greater part of mastoid. Bleeding bone with moderate amount of cholesteatome in the depths.

Perforation 3/16" in diameter through the promontory into the cochlea.

*Result.* Cure.

*Hearing before Op.* None.

*Hearing after Op.* 15/35.

#### CASE NO. 26.

*Sex.* F. *Age.* 36 yrs. *Duration.* 27 yrs. *Ear.* Left.

*Cause.* Scarlet fever.

*Symptoms.* Hysteria. Previous attack of sympt. characteristic of meningeal irritation.

*Examination.* Great destruction of tympanic membrane. Pus and cholesteatome.

*Operative Findings.* Moderate sclerosis superficially. Cholesteatome, dura thickened over the mastoid roof.

*Result.* Cure.

*Hearing before Op.* 3/35.

*Hearing after Op.* 15/35.

#### CASE NO. 27.

*Sex.* F. *Age.* 8 yrs. *Duration.* 7 yrs. *Ear.* Left.

*Cause.* Scarlet fever.

*Symptoms.* None at present. Partial facial paralysis.

*Examination.* Pus and cholesteatome. Adenoids.

*Operative Findings.* Moderate amount of pus and cholesteatome. Facial nerve found uncovered.

Adenoid operation.

*Result.* Cure.

*Hearing before Op.* Loud con. voice.

*Hearing after Op.* 10/35.

In considering the cases in this series, I wish to call attention to the fact that sclerosis was present in fourteen cases, cholesteatome in twenty-one, that the jaw had been entered in one, that perforation had taken place in ten, that the semicircular canal had been penetrated in three, that the cochlea had been penetrated in one, that the Dura had been uncovered in seven, that meningitis was present in two, that adenoids were present in twenty, and that the diseases of childhood were etiological factors in twenty cases, that is,

those cases in which adenoids were present.

When taking up the operative treatment of chronic middle ear suppuration, I shall consider those cases only in which all palliative measures have failed to cure the discharge. As sufficient indication for operative interferences I consider the presence of a chronic purulent discharge, whether accompanied by symptoms or not, which has persisted for a period of months or years, resisting all non-operative measures, and occurring with or without odor or cholesteatome. Should symptoms be present, operation becomes the more imperative, whether the symptoms point directly toward increasing gravity of the pathological condition or whether they are of the indefinite character that to the mind of the accurate observer point with a degree of probability to involvement of the cerebral tissues. In this connection such symptoms as headache, occasional dizziness, or nausea and vomiting and suddenly increasing deafness are of the greatest significance.

Due to a misconception of the character of pathological changes taking place and the nature of the operation necessary for their correction, successful operative treatment of chronic suppurative middle ear disease is of comparatively recent origin. The typical mastoid operation suitable for the relief of the acute condition consists in removing all pneumatic structure of mastoid and posterior root of zygoma, establishing free communication with the middle ear and in discovering and relieving cerebral complications. The after-treatment is to compel the wound cavity to fill with healthy granulations. In the chronic cases this method of operating, no matter how skilfully it is carried out rarely, or practically never, results in permanent cure. The reasons are easy to understand.

In chronic cases the disease is not lim-



ited to areas that can be reached by this method of operating. The chronicity of the disease has been established in the first place by disease of the attic of the middle ear with caries of its walls. No matter how thoroughly the ordinary mastoid operation is performed, this area of bone caries can not be reached. It is necessary in all chronic cases thoroughly to expose this area by removing the external wall of the attic.

The second great reason why the operation satisfactory in the acute condition is not successful in the chronic case lies in the fact that in practically all chronic cases the pathological process has attacked even the most minute pneumatic structures so that it is impossible to reach and completely to eradicate all diseased areas in such a way that healthy granulations may form permanently. Especially is this true in cholesteatomatous cases. This epidermis replaces the normal lining of every cell that it invades, so that no matter how great diligence is exercised at the time of operation, there still remain areas of desquamating epidermis which sooner or later infects and destroys the healthiest granulation tissue.

Therefore, in order to cure the discharge, to prevent cerebral complications, and to improve hearing, it is necessary (1) to expose all macroscopic areas of disease; (2) to prevent the formation of granulation tissue and of cholesteatome upon the surface of the wound cavity. Without going into the technique of the operation, this is best accomplished by the so-called Radical Mastoid Operation, which has for its object the conversion of the mastoid, antrum, middle ear and external auditory canal into one cavity with smooth walls. Such a cavity is secured after the typical mastoid operation has been performed by removing the external wall of the attic and the posterior wall of the external auditory canal. Careful atten-

tion is paid to the complete obliteration of all pneumatic cells of the mastoid, including those in the immediate neighborhood of the semi-circular and Fallopian canals, which are plainly exposed. The floor of the middle cerebral fossa is carefully inspected and as much of it as is suspicious is removed, the tympanic orifice of the eustachian tube is cleaned of all detritus and sealed, the lateral sinus is inspected, and finally the walls of the cavity are smoothed off so that no irregularity or overhang remains. A plastic operation is then done by which the soft tissues of the posterior wall of the external auditory canal are utilized to form a flap to aid in the epidermization of the wound cavity. Finally the entire cavity is covered with Thiersch skin grafts taken from the patient's thigh and the initial incision is sutured for primary union. The after-treatment is then carried out through the external auditory canal.

The final result of such an operation then offers a cavity lined by epidermis, composed of mastoid, middle ear, and canal, and is invisible to the most critical inspection. This allows at all times free inspection of the entire field of operation through the external auditory canal, makes the patient safe from further danger of cerebral involvement and cures the purulent discharge without interfering with whatever degree of hearing may have escaped the ravages of the suppurative process.

The patient may generally be promised that no bad effect upon his hearing will result from such an operation, but that on the contrary, some improvement may be expected. While there are certain cases in which many years of suppuration and extensive change in ear and mastoid have left the patient with a surprisingly good hearing, in the great majority of cases the hearing for the conversational voice is not acute. In the first class it sometimes happens that

hearing is not so acute after operation as it was before. This class is, however, very small, so that this fact must be disregarded in advising operation for the relief of a condition so serious as the one under consideration.

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### PHARMACOPEIA PRECOX\*

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F. S. SMITH, M. D.,  
Saginaw.

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Modern therapy has to a large extent weeded out the wonderfully complex mixtures once in vogue, and a galenical preparation with a dozen ingredients is now a pharmaceutical curiosity. Notwithstanding the great improvement in the standing of general medicine, nearly all that can be strictly classed as scientific in the practical treatment of disease is confined to the surgical branch of medicine. Diagnostic methods have been perfected and modern knowledge has thrown much light on pathological processes, but when we come to apply the remedy there is the rub. *Materia medica* is essentially an elementary branch of medical knowledge, and is very dry and uninteresting as a study, and unless one acquires his information along this line early in his career, he is very apt to get along without any profound insight into the subject. The ignorance of the profession in this regard is what makes it such an easy mark for the patent medicine man.

To be a fair therapist requires at least a general knowledge of *materia medica*. One should be acquainted with his tools. An extreme pessimism in therapeutics I believe to be a misfortune, as many things can actually be done with medicine, although it must be ac-

knowledgeed that the remedies which are to be depended upon for certain results when we need them can almost be counted on one's fingers and toes; but if we know fully the capabilities of this small number, we can be very useful persons in time of need. The Council of the American Medical Association is trying to disseminate this class of information among active practitioners at the present time. The United States Pharmacopoeia and the National Formulary are compiled by some of the best men in the medical and pharmaceutical line, all of national and many of world-wide reputation. Their interest in the work is entirely professional and scientific. The information and formulas given are up-to-date, accurate and authoritative, more so since the passage of the new food and drugs act than ever before. The line of preparations given is varied enough to suit the most versatile prescriber, and the products as elegant as any proprietary house can offer, and you know what you are getting, and can get what you want if you specify U. S. P. The druggist who fails to take notice of these letters will get himself into trouble under the new food and drugs act.

Of course, in these works, fiction has been eliminated as far as possible. They merely describe the physical properties,

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prescribe formulas, and give average doses of the various articles listed therein. The therapeutic value of the remedies must be learned elsewhere, and this is the point where most of the profession fall down. Nothing is said about what these things are good for. There is no moonshine, no apt alliteration, they do not tell what wonderful compounds they are, the compilers do not hold up a symptom complex and say prescribe Jones' Bromides. You have to do your own thinking, and draw your own conclusions. This appears to be an onerous business for many of the profession, and they go about the task grudgingly, and here is where the pharmacopoeia precox comes in.

By pharmacopoeia precox I mean the quack literature of the day, which is sent gratis with more or less regularity to every practitioner whose address the publishers can acquire, and in which is heralded a lot of nondescript proprietaries, which it is claimed will do anything from growing hair on a brass monkey to realizing the fondest hope of the late Browne Sequard when in his dotage. We find such things as a digestive ferment, remedies for ovarian blight and presenility, wonderful, anti-morbific, and anti-purulent preparations, that correct all depraved conditions. They are powerful, but harmless, and where there is a dyscrasia of the secretions, or tissue disintegration exists, these wonderful remedies should be used. By the same gratuitous authority, we are told of cod-liver oil preparation, with the offensive grease removed, because it deranges the stomach, and hinders digestion. It contains all the vitalizing properties of cod-liver oil, without the grease, bad taste and odor that have done so much to injure the reputation of cod-liver oil.

These preparations differ very little from those that are offered to the public direct from the start, without the mediation of the physician. They usually con-

tain a slightly higher percentage of alcohol, and other stimulants, and are marketed at a distinctly higher price; otherwise they are much the same, and it is the aim and ambition of every proprietor to obtain a public demand for his wares at the expense of and through the mediation of the physician, although if you point your finger at one of these fellows, he shouts "ethical," without saying a word.

One strongly alcoholic preparation is lauded to normalize nerve tension during labor, and we are asked to prescribe a high priced preparation of Glauber salts, because of its wonderful eliminative qualities. These preparations are often marketed by people without any knowledge of medicine whatever. One quite successful medical specialty that I know of, was backed by a pair of Chicago gamblers.

Good authority states that over 90 per cent of these proprietaries are marketed by people who have no other place of business than an office from which to mail their literature, the manufacture of the goods being contracted for where it can be done the cheapest. Exploitation along this line was for some time confined to specialty houses, who pushed two or three articles with imposing names, to which were ascribed catching formulas. These were never working formulas, and seldom went farther than the label. So great was their success in working the profession and so profitable was the venture, that at last many of the more reputable pharmaceutical houses were induced by the greed for gold to try to take a fall out of the doctors, and at the present time there are very few such firms who do not have several trade-mark specialties with which to work the profession. I am quite anxious to see how the food and drugs act of 1906 will effect this class of preparations, most of which are clearly misbranded under the act, and unless



the proprietors have a change of heart before 1907, a good many medical men, who have been entirely innocent of any knowledge as to what they have been giving their patients, may be able to see what they have been doing to themselves by prescribing prescription patents. It is labels and literature for the M. D. and "Vis medicatrix naturae" for the patient.

The preparations of the pharmacopoeia precox are not only heralded in the quack literature of the day, but special missionaries are sent around to interview the M. D. and do detail work, as they call it, and it is really wonderful to observe the effrontery of these people. One of these fellows, whose knowledge of medicine was acquired in a Sheldon School of Salesmanship, will walk into the office of an M. D. and make the most outrageous, improbable and impossible claims for his stuff. He will quote a formula of common everyday drugs, whose properties anyone knows, or should know, they dress them up in their Latin names, selecting the longest and most sonorous they can find, and reel off a lot of fairy tales about them that would make Munchausen green with envy, and the funny thing about it is, the profession takes it for Gospel truth. Like a Salvation army convert, looking for light, they embrace the faith on sight, and the next patient that comes in, gets Dadd's Pills or Neurilla, or a Compound of Sambucus Canadensis or taraxacum Dens Lionis that is going to equalize the circulation and produce a calm neurile equilibrium.

There seems to be a natural leaning towards the mysterious, the inscrutable, The Hindoo, when things go crosswise, tries to propitiate the offended gods, and does not hesitate to sacrifice his offspring to the crocodiles of the Ganges. If this does not suffice, he will even part with his mother-in-law, or his wife, in order to get relief from his troubles; the

devout Christian, when trouble assails, and he gets beyond his mental depth, goes to the unknown and the unknowable, and relieves himself in prayer. He throws his burden on the Lord. The up-to-date medical man, who has spent four or five thousand dollars and as many years' time to perfect his knowledge of anatomy, physiology, pathology, materia medica and therapeutics, who has dipped into microscopic analysis and finished himself in bacteriology—what does he do when he gets off his feet? He passes all of this up and falls back on the patent medicine man, and who is he? Quite often the butcher, or brewer, or baker, or candle-stick-maker, who has had a few dollars to put into the graft, for what he can make out of it. In a late issue of the *Journal of the American Medical Association*, I noticed this: "Can we blame the layman for using nostrums simply because they are advertised, when there are physicians, who for the same reason, prescribe concoctions that are just as quackish and just as useless? And can editors of medical journals consistently find fault with newspapers for carrying advertisements of fraudulent patent medicines, when they themselves admit to their pages advertisements of nostrums that are no less fraudulent and of no more value?" The late Dr. Squibb once said, in speaking on this subject, that there was one thing in favor of prescribing patent medicines, that it took no thought and left so much more time for the higher reaches of the profession.

I would make a plea for a more rational therapy, for more thoughtful attention to the cases that come to us; instead of handing the patient a gold brick, in the shape of an order for a patent medicine for his dollar, let us give him the attention he is honestly entitled to. If we want the support and respect of the community, I maintain that we must start with a reasonably

decent opinion of ourselves, and I do not believe that any man, who habitually prescribes patent medicine, can have a very high estimation of himself, therapeutically speaking. It is not quite so risky as porch climbing, but is quite as much "infra dig." If, instead of having our ideas about therapeutics hatched

in the incubator of the proprietary man, and dished up to us in the gratuitous journals, we dig them out for ourselves, or take them from some respectable and reputable medical authority, I believe we will think more of ourselves, and be more esteemed by the public.

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## SOME ASPECTS OF RENAL SURGERY AND NEPHRITIS\*

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HAL C. WYMAN, M. D.,

Professor of Surgery, Michigan College of Medicine and Surgery,  
Detroit.

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It is well known that surgery has accomplished a great deal in the successful treatment of nephritis, and it is difficult to explain the good results which commonly follow operations upon the kidney of nephritic persons who are edematous and water-logged. Some surgeons have sought to explain the satisfactory results by assuming that the satisfactory results by assuming that the advised by Edebohls, leads to the formation of a new system of renal blood vessels which carried on the circulation through the kidney without transudation of albumen and sloughing of the renal epithelium. Others have sought to explain the pleasing results of operations upon the kidney of albuminous patients by assuming that the splitting of the kidney capsule or its puncture or scarification relieved the internal congestion on which the albuminous urine depends. Then there are operations for the relief of movable kidney and of floating kidney, accidentally discovered in cases of Bright's disease, which have been operated upon by stitching the kidney into

its normal position and the patients have subsequently recovered sound health. We must not dispute these results, because all surgeons who have done any work on the kidney of nephritic persons testify to these facts occasionally.

It is possible that we have had a mistaken notion of the location of the normal kidney and of the mechanics of its circulation and nutrition. Its activity is supposed to depend upon the power of the heart in driving the blood through the kidney under the influence of the nervous system. It is known that a destruction of the nerves entering the kidney at the hilum is followed by impairment of function of the kidney and the development of an inflammatory process which culminates in abscess and total degeneration of the organ. It is further known that a temporary obstruction of the circulation leading from the kidneys through the emulgent veins is followed by sloughing, or separation of renal epithelium, casts, and the presence of albumen in the urine. A temporary traumatic albuminuria may be thus induced, and the only damage done, aside from the changes provoked in the urin-

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ary tubules and the peritubular vessels, is the temporary obstruction of the emulgent vein by a ligature. If this ligature is allowed to remain permanently, the kidney degenerates and ceases to functionate.

We are told that the kidney is located behind the peritoneum, that it rests on the quadratus lumborum and psoas muscles and that it is enveloped in fat and loose connective tissue, that it is fixed in its position and normally is firmly anchored. These views are derived from dissecting room studies. The surgeon who operates upon the kidney or who has studied it with his hand in the living abdomen arrives at a different conclusion as regards the location and mobility of the kidney. The living kidney normally is movable, it floats in the bed of perirenal fat and moves synchronously with the diaphragm. The influence of the movements of the diaphragm in driving the blood stream through the kidney and promoting the urinary flow through the ureter is indicated by the rhythmic jets of urine from the ureteral orifices in the bladder as observed with the cystoscope and in cases of extrophy of the bladder. These evacuations, or urinary jets, are influenced in force and volume by the respiratory movements, and they occur quite independently of any influence exerted by the sympathetic nerve, which penetrates the kidney.

Now this peristalsis, excited primarily by the movement of the diaphragm, reaches to every part of the kidney and ureter, and a certain degree of mobility of the kidney is essential to its elicitation, promotion and development. If the normal kidney floats, instead of rests, in the retroperitoneal space of living persons, any condition which impairs that freedom of motion will be likely to interfere with the impulses and motility given to the kidney by respiration, and, as that motility is a vital or essential

force in carrying on the nutrition of the kidney, that organ is liable to disease and consequent degeneration very much as we see other organs of the body undergoing degeneration through want of normal motility and exercise.

Nephritis is a degeneration of the kidney, the result of perverted and impaired motility in the organ. It is in the majority of cases due to the anchorage of the kidney in the deposits of fat and perirenal tissues commonly noted at the autopsy. It is not due primarily, in the writer's judgment, to some mysterious and subtle influence pervading the blood stream and disturbing the intima. The absolute failure of treatment of nephritis with drugs and the frequent cure by the surgical method before mentioned, is in part the foundation upon which this opinion rests. That we should have gone on for years studying the dead kidney in the dissecting room and from these studies deduced our theory as to the causation and treatment of the disease is nothing more than what we might ordinarily expect for it is so easy in starting from a false premise to arrive at a wrong conclusion. Now, it may be that the surgery of the kidney, as already described in this paper, could be simplified in accordance with the idea that the kidney is an organ more or less movable and always floating in the retroperitoneal space; when renal disease is brought about by impaired motility it could be cured by an operation which consists simply in opening the loin, stripping the kidney of its layer of fat, lifting it into a position in the retroperitoneal space where it can float and move with the impulse of the diaphragm and functionate as it normally should, supported in this position until healed by gauze packing and simple devices calculated to free it from the embarrassment due to deposits of fat and connective tissue above it.

The operation practiced by Senn in



the treatment of floating kidney is simple and successful in this sense, that it removes no tissue from the kidney and does not mutilate the organ in any way. No better method of dealing with the nephritic kidney than the adaptation of this method of Senn is known to the writer. But we should not lose sight of one other phase of renal pathology, that the floating kidney is an organ projected into the peritoneal cavity and provided with a distinct mesonephron; that it is capable of wandering more or less extensively in the cavity of the abdomen, and that it is not infrequently the source of serious constitutional disturbances, which sooner or later culminate in that degeneration of the kidney characteristic of some phases of Bright's disease. I think it is apparent to any one, that in proportion as the mesonephron permits the normal movable kidney to wander into parts of the abdomen beyond the direct impulse of the diaphragm, it may undergo degeneration similar to that which we see in Bright's disease, and further because the long mesonephron exposes the blood vessels to twisting upon their long axis and obstructing the emulgent veins. These kidneys, when treated surgically, are dragged into a position between the colon and the diaphragm where the impulses of the diaphragm will be constantly communicated to the kidney, re-establishing its function on normal lines.

The dropsy and edema incident to Bright's disease are, in almost every instance, promptly relieved by the surgical operation which exposes the kidney and restores its motility. This may be due to two causes: first, the removal of the strangulation and congestion to which the organ has been subjected by its deposit of fat and its long mesonephron, and second, to the opening of numerous lymph spaces in the perirenal tissues by the incisions, which permit the free emptying of the water-logged

tissues. To quote from my practice, let me recite the case of John S——, of Milan, Michigan, who had for two years suffered from shortness of breath, pallor of face and edema of legs and abdomen, with progressive loss of strength; his urine, on heating with nitric acid in a test tube, revealed a precipitate of albumen half an inch in depth in a tube containing one inch of urine and reagent. He was barely able to get about, going upstairs was quite out of the question, owing to the labored respiration it induced. His pulse was 110 beats per minute, the total volume of urine of 24 hours was less than 20 ounces, and the specific gravity 1005. I opened his loin (under much apprehension as to the patient's ability to endure chloroform anesthesia), found the right kidney anchored in fat, stripped away the fat, dragging fully six ounces from the wound, pushed the kidney forward behind the abdominal cavity and put two strips of gauze twenty inches long and five inches wide under the kidney, allowing the ends of the gauze to project from the wound, left the opening three inches long in the loin to heal by granulation. The result was an increase in the quantity of urine, increase in the specific gravity, disappearance of albumen, disappearance of edema and restoration of the patient to his duties as a farmer.

I might cite many cases of practically the same history, but will not presume upon your time in this direction, but I wish to say that every case of albuminuria with edema of the extremities, general anasarca, and enfeebled heart (not too feeble to survive the risk of anesthesia), should have the loin opened between the last rib and the crest of the ilium, the kidney exposed and stripped of its fatty capsule, then the wound may be drained with gauze wicks and carefully sutured and the patient placed in a more or less prone position that the movement of the diaphragm may

strike the diseased kidney and restore to it one natural and most important factor in maintaining its nutrition. I regret feeling compelled to ignore the divers theories and the beautiful facts evolved and demonstrated by painstaking pathologists and submit this operation for the treatment of the most distressing phase of the symptom complex commonly known as Bright's disease, on purely practical grounds. At the

same time I feel that it is my duty to call your attention to the fact that the normal kidney floats in the retroperitoneal space, and that the most important factor in its functional activity is the motility imparted to it by the rhythmic movements of the diaphragm, and on the impairment of this motility I would rest the whole fabric of the infirmity known as Bright's disease.

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### IDEAS AND IDEALS\*

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F. R. BLANCHARD, M. D.,  
Lakeview.

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I feel that it is very difficult to undertake to fill the place of our honored president, Dr. John Avery. But the Montcalm County Society, wishing to make his labors as light as possible, voted last year that the annual address should be given by the first vice-president; hence this effort.

I am a sort of dreamer, and delight at times to close my eyes and give my imagination full rein; at such times I sometimes see, with the mind's eye, a picture of the "True Physician," and so today I have concluded to give you a few of my ideas and ideals; not all my own thoughts, but gathered largely from the writings of other men. I have been reading a little book which I wish every one present here today might possess, "Counsels and Ideals," from the writings of William Osler. Since reading it I regret never having been his student, for surely anyone who "sat at his feet and learned of him," must have been made

a better man, with great ambitions and high ideals.

Last year the matter of a fee bill was presented to this society, but after much discussion it was laid upon the table, our president, Dr. Avery, being afraid that, if such a bill were adopted, it would have a tendency to promote a spirit of commercialism among the members. The ideal physician should be one whose aim is the uplifting of humanity and who makes his fee a secondary matter. I believe "the laborer is worthy of his hire" and that every physician has the right and ought to demand proper compensation for his work. Dr. Stimson, of Eaton Rapids, says: "Minimize no treatment, however simple, if it cures the patient you cannot estimate its value in dollars and cents." But we should be very careful lest the dollar grow so large that it obscures the real object of our labor. Some writer has said "The True Physician is a scientific man, a seeker after knowledge, knowledge which is capable of practical application

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\*Read before the Eleventh Councilor District Medical Society, Greenville, October 19, 1906.

in adding to the comfort and prolonging the life of human beings. So long as he is impelled by the scientific spirit, the physician will add daily to the sum total of knowledge, and will make practical application of that knowledge in the work of mitigating the ills of humanity. If, on the other hand, the commercial spirit become the dominating force in his professional life, his quest for knowledge will become secondary to a quest for gold, and his efforts to lighten the ills of his patients will give place to a systematic effort to lighten their pocket-books."

Osler says: "Always seek your own interests, make of a high and sacred calling a sordid business, regard your fellow creatures as so many tools of trade, and if your heart's desire is for riches, they may be yours; but you will have bartered away the birthright of a noble heritage, traduced the physician's well deserved title of the Friend of Man, and falsified the best traditions of an ancient and honorable guild."

There is no doubt but that the majority of our profession, especially the larger men, who have become famous and are skilled in their art, have these high ideals; but we smaller ones, who are still near the bottom, are apt to think too much of the commercial side. I have often noticed, when medical men meet together, there is a tendency for their conversation to drift into commercial rather than scientific channels. But, gentlemen, remember this: "If the practice of the healing art be followed by purely mercenary motives and reduced to an exclusively commercial basis, the high ideal is missed; the nobler ambitions having their wings clipped to conform their flight to a low aim."

Few men become rich in the practice of medicine, but it is our privilege, as well as our duty, to value our services highly enough that we may be able to live well, educate our families, and pur-

sue our studies and investigations, but we should never let the matter of the fee stand in the way of giving help where it is needed. We should remember that in practice as well as in sentiment "it is more blessed to give than to receive," and if the good we might do to others be withheld through fear of self-improvement, we shall make ourselves not richer, but poorer. "The soldier in the front rank at Antietam or Gettysburg did not stop to think of looking out or taking care of himself." So with the physician in his work, if he is continually thinking of how much he will be able to make, or how large a fee he can charge, he will not be a success, but if he throws his whole soul into it, with the fee as a secondary consideration, success will be sure to crown his efforts and the dollars will come.

On the other hand, we should look to it that our generosity is not abused. There is a class of individuals whom it is a crime to help—the dead beat class; to these we should have the courage to say "no." I think there is too much charity work, it has a tendency to make people dependent, and I think no matter how poor the individual, we should demand something for service rendered; it will help to lift him out of his dependent position and make him more self-reliant and raise his self-esteem. Emerson says: "Then again do not tell me, as a good man did today, of my obligation to put all poor men in good situations. Are they my poor? I tell thee, thou foolish philanthropist, that I grudge the dollar, the time, the cent I give to such men, as do not belong to me, and to whom I do not belong. There is a class of persons to whom by all spiritual affinity I am bought and sold, for them I will go to prison if need be; but your miscellaneous popular charities; the education of college fools; the building of meeting-houses to the vain end to which they now stand; alms to sots; and the thou-



sand-fold relief societies; though I confess with shame I sometimes succumb and give the dollar, it is a wicked dollar, which by and by I shall have the manhood to withhold."

The ideal physician should do good work, honest work and thorough work. What a farce, with a great many of us, is the routine office work. I am ashamed of myself when I think of the times when I have examined the lungs and heart through all the clothing, or percussed a liver through a corset or palpated an abdomen without undoing the dress skirts. I was very much impressed this summer with the work done in the out patient department of the Massachusetts General Hospital; no matter how many patients, whether rich or poor, whether their ills were trivial or severe, all were subjected to a rigid, thorough examination, and in this way I saw four cases of diabetes diagnosed, which had been missed by their family physician, just because they did not do thorough work. Osler says: "Every physician should spend a good deal of his time in the laboratory. A room fitted as a small laboratory, with the necessary chemicals and a microscope, will prove a better investment in the long run than a static machine, or a new-fangled air-pressure spray apparatus." Rev. Herman Randall in one of his sermons, said: "Whatever dreams may have come to Christ, during the years until he reached the maturity, we know not; whatever plans may have been maturing we cannot fathom; or whatever ambitions he may have espoused nothing is told us; but we see him day after day going back to the carpenter's bench and taking up the tools and continuing his work: a wage-earner, a day laborer, dignifying forever, in the eyes of man, this great part of our existence to which we all must give ourselves, in some form or other. After all it is not the wages which make a man's work of value. I

know that it is the way we estimate our work, by what we receive of material compensation. But the thing that makes your work of value is the worth of your work. You may receive low wages, or high, or nothing at all, but the inspiration to the man who catches this great truth that life is a divine gift, is that God touches life at every point, that the Divine is revealed in the human, and nowhere perhaps more fully than in this work of our daily lives. When a man once comes to see that, he cares not so much about the wages, it is the worth of the work he renders, it is the quality of the work he does, it is the kind of service that he gives, whether of heart or human brain, that brings him truest satisfaction."

The Ideal Physician should be honest with his patient. Dr. Richard Cabot, of Boston, in a paper read before the American Medical Association this year, said: "The physicians are to blame for the patent medicine evil, we created the demand, we feed the demand." Probably nine-tenths of the medicine prescribed are placebos—this creates a drug habit with the people, which they finally gratify, without the advice of the physician, by buying patent medicines. A placebo should never be administered. If the patient does not need the medicine, tell him so frankly, and by a process of education teach him the principles of right living. We should also be honest with our patients in regard to their ailments—a lie is never justifiable, if a patient is suffering from some serious malady it is necessary for him to know it, so that he may have proper care, and that he may co-operate with his physician, as to the best methods to prolong his life and promote his welfare.

The Ideal Physician must be sympathetic. The administration of drugs is the smallest part of our profession, we must be able to help our patients in other ways, give them "advice in their

troubles, sympathy in their sorrows, and aid in their misfortunes." Dr. Herdman, of Ann Arbor, in his lectures often says:

"Can't thou not minister to a mind diseased,

Pluck from the memory a rooted sorrow,

Raze out the unwritten troubles of the brain,

And with some sweet oblivious antidote  
Cleanse the stuffed bosom of that perilous stuff,

Which weighs upon the heart,"

"If you cannot do this you are not a true physician."

Osler says: The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head. Often the best part of your work will have nothing to do with potions and powders, but with the exercise of an influence of the strong upon the weak, of the righteous upon the wicked, of the wise upon the foolish. To you, as the trusted family counsellor, the father will come with his anxiety, the mother with her hidden grief, the daughter with her trials, and the son with his follies. Fully one-third of the work you do will be entered on other books than yours. Courage and cheerfulness will not only carry

you over the rough places of life, but will enable you to bring comfort and help to the weak hearted, and will console you in sad hours, when, like Uncle Toby, "you have to whistle that you may not weep."

We often find our patients' ills due to other causes than physical; it may be the loss of a friend, an unhappy love affair, financial loss, home surroundings uncongenial, or a hundred other things. We should be able to get to the bottom of their troubles, and if possible straighten them out. I often tell my patients, that the true hero or heroine is the one who is able to fit into his surroundings. I carry in my pocket and often read to my patients this quotation from John Locke: "Live the best life you can, but live it so as not to give needless offense to others; do all you can to avoid the vices, follies and weakness of your neighbors, but take no needless offense at their divergences from your ideal."

More than any other, the practitioner of medicine may illustrate the great lesson that we are here, not to get all we can out of life for ourselves, but to try to make the lives of others happier. Let me close this paper with one more quotation from Osler: "To have striven to have made an effort, to have been true to certain ideals, these alone are worth the struggle."

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Do not be in a hurry to perform primary amputations after severe traumata of the extremities. First, combat the shock and prevent hemorrhage. Keep the wound as clean as possible and only when the patient has quite recovered from his shock (at the end of a few days or more), perform the amputation.

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It is well to remember that not all ulcers of the stomach are characterized by the classical symptoms of pain, vomiting and hemorrhage. Many patients presenting "dyspeptic" symptoms of only mild grade are afflicted with this disease and such cases may easily be diagnosed as functional disorders until the persistence of the symptoms leads one to suspect the graver malady.—*Am. Jour. Surgery.*

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Be very guarded in the prognosis of ulcerations on the sole of the foot in diabetic or tabetic patients, no matter how small or trifling the ulceration may be. They persist for long periods and may even never heal.

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A persistent elevation of temperature after a radical operation for mastoiditis should lead one to suspect the possibility of a complicating brain abscess. If the fever shows wide fluctuations of temperature a sinus thrombosis is more probably the cause.

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The thirst following a hemorrhage from gastric ulcer is best relieved by small quantities of cocaine solution.

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APRIL

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### Editorial

The bane of the present-day profession lies in the field of therapeutics in more ways than one. In the majority of all medical schools the subject is insufficiently taught and this is the direct root of that succeeding evil,—the prescription of patent and proprietary articles. Now a layman comes into our midst and points out our shame; Edward Bok, editor of the *Ladies' Home Journal*, read a paper entitled "The Physician and the Nostrum" before the Philadelphia County Medical Society, December 12, 1906, which appears in the *Journal of the American Medical Association* for February 23, 1907. Mr. Bok has wielded a valiant pen for some time, in the same cause as Samuel Hopkins Adams, and it is not sarcasm when we take opportunity to thank both these men for the campaign they have conducted on behalf of the ethical medical profession. We only fear that their work has been too little read and too little appreciated by physicians.

Beyond a doubt their efforts have had a greater educating effect upon the general public than all the spasmodic and feeble measures ever taken by practitioners of medicine, singly or collectively. To be sure, the *Journal of the American Medical Association* is conducting a well-defined and persistent policy concerning this subject, but it reaches only its subscribers, and of those we fear it impresses too few. Nevertheless, its work would indirectly benefit the public if

only physicians would heed the lessons being constantly set before them.

For instance, would not a thoughtful reader be impressed by the following words of Mr. Bok?—

"I am going to try to point out to you that in two distinct ways the medical profession is today absolutely hindering us laymen in our fight and clogging the wheels of further progress: First, in your inactivity where you should be active, and secondly, by your direct coöperation with the 'patent medicine' traffic."

The inactivity referred to, as subsequently elaborated, consists in the failure of physicians to fight against the patent medicine and other worse medical advertisements in the lay press. Yet despite their comparatively infinitesimal help in this fight, much has been accomplished.

"Today scarcely one of the reputable monthly magazines will accept a 'patent-medicine' advertisement, and the same is true of the prominent weeklies. The best of the farming papers are today immune from this advertising. Pressure is being brought on the religious press that will soon result in a general clearing up of those papers. Progress with the daily newspaper has been slower; still there are forty-three daily papers, large and small, today that will not accept 'patent-medicine' advertisements. Now, gentlemen, remember that such a step means a great deal in the revenue of a periodical. I know a magazine that could easily increase its advertising revenue six figures a year if it accepted 'patent medicine' advertisements. I have no doubt that if the *New York Times* and *Philadelphia Ledger* admitted this business these two papers could increase their revenue by at least fifty thousand dollars a year. Many of these papers and magazines have taken this stand on principle; others because of the pressure brought on them by their readers. The public at large has been writing to its newspapers insisting that those advertisements shall stop; the church people have been writing to their papers; the farmers have been writing to their papers—all classes of the public have been busy; all classes, gentlemen,—except the physicians.

"Look at your average medical paper—reeking with the advertisements of proprietary—so-called ethical—preparations. And not only advertise—



ments, but reading notices palpably intended to deceive. The very class of papers that should have been the first to cleanse their pages is today the last to make even a move in that direction, and stands today, in this respect, as a discredit to honest journalism.

"Now, what is the result? I go to the publisher of a newspaper and ask him to clean his columns of 'patent medicines,' and he points, as he has done in many cases to me, to the medical press. 'Why, man,' he argues, 'these preparations can't be so bad as you fellows make out, or they wouldn't be advertised in these medical papers. These medical publishers know better than you do what is good and what is bad in these "patent medicines," and what they allow to go into their papers I guess we can safely stand for.' That is why it is so important that the medical press should be cleansed of these advertisements: it is in the influence, the example that they exert on the lay press, and it is an argument on the part of the lay publisher that is very difficult to combat. It is this argument that again and again is used by lay publishers in writing to their protesting readers, and then these readers send the letters to me and ask, 'Is this true? Are these advertisements permitted in good medical papers?'"

"Now, you know that it is true, and you know also that it should not be so, and yet what have you, physicians, done to stop it? You have, in your societies, passed resolutions, a very easy and comfortable thing to do and about as ineffective as it is comfortable. I have myself seen these resolutions received by the medical publishers, and disposed of with a grin—in the wastebasket."

All this is a stigma upon the medical profession which ought to be eradicated. That it is not, is due to ignorance, heedlessness, or connivance on the part of medical men;—ignorance of those who are unaware of the evils; heedlessness of those who know, but make naught but empty protests; and connivance of those who, for various motives, have an interest in the perpetuation of such evils.

But it is the second count on which the profession must be held most opprobriously guilty,—the "direct coöperation with the "patent medicine" traffic.

Under this accusation comes the accusation—shamefully deserved—that physicians widely prescribe remedies of a proprietary character, whose formulae are secret, or, published by patent, are yet unknown or imperfectly known by the prescriber. This practice has grown to an extent that is alarming, because of the harm that is done, not only to the patient, but to the medical man himself, and his colleagues the world over.

"Now, gentlemen, I will not gainsay that there are good proprietary preparations and that a physician, after a diagnosis of a case, and knowing his patient, and being fully aware of the exact ingredients in such an ethical preparation, is perfectly justified in prescribing it, if he feels that it meets the conditions of that case. Whether such a course is detrimental to scientific medicine is for him to settle with himself.

"But there is a time when he is not justified in such prescription, and when he closely borders on the criminal line, and that is when he prescribes a preparation of which he either does not know the ingredients or, what is even worse, when he has erroneous information as to those ingredients.

"And yet this prevails today in the medical profession, and prevails to an extent that is almost impossible of belief to the layman. When I heard the first mutterings of this condition of things I gave it no credit. While I knew that physicians were human and made their mistakes in common with us all, I could not believe that they could make *that* mistake. But instance after instance came to me until I could no longer turn aside, and I determined to find out. And recently I did.

"Conditioned, that I should not reveal my source of information, nor give names of remedies or physicians, I was given an opportunity to examine 100 prescriptions that had been filled. Of those 100 prescriptions, 42 prescribed a proprietary drug or article in part or in whole. I selected 30 of these, and called on each of the physicians who had written those prescriptions. Now, gentlemen, those physicians were men of excellent standing, some very high in their profession, and how many of those 30 physicians, would you say, gave me an accurate, or anything approaching an accurate, analysis of the ingredients of the nostrums which they had pre-

scribed? How many? *Two, gentlemen, two out of all the thirty!* The rest either did not know, or—what is even more dangerous—thought they knew when they did not.

"One of these prescriptions called for a certain headache remedy, given to a woman who was in an exhausted condition, who had weak heart action, and who, having read of the dangers of headache remedies, did not trust her own judgment, and called for her family physician. He gave her a remedy, saying that he knew it to be harmless, that it was entirely free of the powerful drugs of which she had read. Within a half-hour of taking the remedy the woman's lips began to get blue, she went into unconsciousness, and it required all that two doctors could do to bring the woman back to consciousness. The remedy contained 61.5 per cent. of acetanilid! The physician, when I saw him, showed me his proof on which he had based his knowledge, the statement of the manufacturers, whom he said were reputable people—a statement, as I happen to know, written by a man who never went to a medical college, a man whose word every physician would scorn to accept did he know him. When I showed him my analysis he was dumbfounded, and confessed he hadn't known. *But, gentlemen, he should have known. It was his duty to know!*

"Another prescription called for a certain tonic that the physician told me was one of the most reputable tonics known to the profession; its ingredients of quinin, beef and iron were universally known and nearly all physicians prescribed it. One of its greatest virtues was, he told me, that it was non-alcoholic. I proved to him that the tonic did not contain even a trace of beef or iron, but that it did contain 22 per cent. alcohol. He could not gainsay my authority; he was surprised and confessed that he had not known. *But, gentleman, shouldn't he have known?*

"One of these prescriptions gave to a child a remedy calculated to soothe its restlessness. It did so, so effectively that the parents changed their physician, went to another, who prescribed another remedy, and the child lay in a stupor for two hours. I saw both of these physicians; they confessed to me they did not understand the case. But I did, gentlemen, for both of these physicians had given that child morphin concealed in "ethical" proprietary preparations, and when I proved this to them they were amazed and confessed they hadn't known. *But, gentlemen, should not a physician, prescribing for a child, know?"*

If Mr. Bok made similar investigations in our midst he would find the same or a worse condition. Probably no one is absolutely innocent of the accusation, but sober reflection brings the conviction that the United States Pharmacopeia contains enough drugs for the treatment of disease; that it is possible to prescribe those drugs in sufficiently elegant form, and if one doesn't know how, he should learn; moreover, new preparations are being adequately judged by the Council on Pharmacy and Chemistry of the American Medical Association, and if one must have new remedies, let him consult the Council's opinion, rather than the manufacturer's information. Dr. F. S. Smith in his paper on "Pharmacopeia Precox" (see original articles) touches saliently upon this very point and presents it in a most sensible manner.

A grave state of affairs surely exists when a layman can enter our ranks and so easily lay bare the ignorance and carelessness that exists. What would happen if such an exposition should be made public? Would it not tend to seriously impair the prestige of legitimate medicine? We believe that the first step to remedy the evil should be taken by medical schools, where much more thorough instruction should be given, first in therapeutics, and second, in medical ethics.



Patent medicine advertisements in the religious journals are attracting attention outside of the medical profession. Churchmen, everywhere, are awakening to the fact that these nefarious and lying statements do more harm when they appear in the religious press, than elsewhere, because they reach a class who believe everything they read in their favorite church paper. They believe it is true, "because the church paper publishes it."

The action of the Presbytery of Lima is worthy of note and recommendation to other similar bodies. For a copy of this resolution we are indebted to Dr. B. H. Blair, of Lebanon, Ohio, whose writings on the subject have attracted considerable attention and have had not a little influence. This resolution is as follows:—

The Presbytery of Lima, in session at Lima, Ohio, this tenth day of December, A. D. 1906, by unanimous vote, puts on record its approval of the investigations which have led to the discovery of the immoralities and fraudulent practices connected with the patent and proprietary medicine business as conducted by the American Proprietary Association.

We give our hearty sanction to the efforts of many secular newspapers and journals to clear their publications of misleading and fraudulent advertisements. We counsel and advise editors and publishers of church papers of our denomination to do likewise, and to make no contracts with advertisers of medicines for self treatment, believing that such practice leads to charlatanry, fraud and imposition.

Recognizing the pastor's responsibility in connection with reading in the households of his people, we demand that every line and sentence in the church paper, whether editorial, advertisement or other reading matter, shall be the truth, the whole truth and nothing but the truth.

We declare it our purpose to refuse endorsement to church publications which refuse to comply with this requirement.

That public announcement of this our purpose may be made, a note of this action is directed to be inscribed in the minutes of this meeting by the clerk, and copies of the same sent by him to the *Herald and Presbyter*, of Cincinnati, Ohio, and *The Interior*, of Chicago, for publication.

D. EVANS JONES, Stated Clerk.

Venedocia, Ohio, Dec. 18, 1906.



A newspaper item from Grand Rapids describes the death of a woman under somnoform. She was of middle age, in apparent good health, as asserted by the physician who examined her just prior

to the anesthetic, and took the inhalation normally while six teeth were extracted.

"The patient began to show signs of regaining consciousness, but in a moment the pulse became weak, the pupils dilated, and the patient commenced to have peculiar respiration,—a long, blowing exhalation, and a short imperceptible inhalation. This condition remained for a moment, when her heart seemed to be paralyzed, and I could find no signs of heart beat or pulse, but the respiration continued from 60 to 90 seconds, then stopped at once. Everything possible was done to restore the patient, as dilating sphincters, hypodermics of nitrate of strychnia, nitro-glycerine, inhalation of amyl nitrite, and artificial respiration."

The above quoted words of the attending physician's report gives a good idea of a death from anesthesia. Such accidents can never be foretold, indeed they most characteristically occur in persons apparently healthy, and this is because in diseased subjects a safer anesthetic is chosen or greater care exercised. The published reports on somnoform prove that it is not so safe as ethylchloride or ether, and does not compare with nitrous oxide gas. Those who persist in using somnoform are comparable to those who persist in chloroform,—they regard convenience more than safety. In the hands of the average dentist or physician the anesthetic for extraction of teeth should be nitrous oxide gas. The administration of ethyl chloride and ether should be entrusted only to an experienced anesthetist, and chloroform should be used only under especial indications. There is no apparent indication for somnoform under any conditions, when better agents are at command.



Opsonic Therapy and its relation to the treatment of disease are subjects in which there is a growing interest in this country. The developments in this line



of research, as being carried on in England by Sir A. E. Wright, who has, perhaps, been more largely instrumental in crystallizing the theory and rendering its application to the treatment of disease practical than any other one man, together with the results of investigators in other countries, seem to bid fair to revolutionize certain lines of therapeutics. Indeed, the growing knowledge of opsonins is indicative of such great promise, it behooves physicians who would be progressive to familiarize themselves with what is being accomplished in this line.

One of the most readable and most interesting articles on opsonins that have come to our notice in American medical literature is the one occurring in the February sixteenth number of the *Journal of the American Medical Association*. This article is the published address recently delivered, by invitation, by Dr. A. P. Ohlmacher, of Detroit, before the Chicago Medical Society. The article gives a resumé, in condensed form, of the present status of the opsonic hypothesis and gives expression to a number of sentiments with which we heartily agree. For example, we believe, with this author, that "the appreciation of Wright's conquests has been retarded in the United States by the publication of several papers too severely and too needlessly abstruse, with the result that a comparatively simple theory and the excellent results of its application have been rendered confusing and unattractive to the average medical man."

The opsonic theory, condensed, is that there are certain substances present in the blood serum that have the power of so acting on pathogenic germs, as to enable certain white blood-corpuscles (the phagocytes) to destroy these offending microorganisms. Each germ is supposed to have a corresponding opsonin, and the quantity of an opsonin as compared with that in a normal blood is

known as the "opsonic index." A lowering of an opsonic index opens the way for the invasion of the corresponding germ and the establishment of a diseased condition which that germ may produce. An infection by any germ is *prima facie* evidence that the opsonin against that germ is low, and it means that in order to bring about a cure of the infection, that particular opsonic index must be increased to or above normal. Oftentimes, this takes place naturally, and a spontaneous recovery follows, but this does not always occur and a chronic condition ensues. It has been abundantly demonstrated that the opsonic index can be raised by artificial means—that is, by the introduction into the system, at proper intervals, of small quantities of a sterilized culture of a germ corresponding to the one that is to be combatted. This is the basis of opsonic therapy. The substance injected is, generally, referred to as a "vaccine," but we agree with Dr. Ohlmacher in considering this an improper use of the word. Opsonic developments show the necessity of a special nomenclature for this line of work and as a result such a nomenclature is gradually being coined.

The results from his clinical application of opsonic therapy, as reported by Dr. Ohlmacher, are remarkable and seem to outstrip anything yet accomplished by drug therapy and conventional treatment. His largest experience, it seems, has been with staphylococcus infections, some of which were very obstinate and of long standing. A most pronounced improvement followed promptly in all cases, and in the majority resulted in recovery. Two of these cases were acne vulgaris, of one and two years' standing, respectively. Eight injections of a staphylococcus "vaccine" in the first case, covering a period of six weeks, and six injections in the second case, brought about a surprising improvement, both local and general. Several other cases

of acne, including one of obstinate acne rosacea, are referred to as having been either greatly benefitted or entirely cured. A case of furunculosis and progressive multiple axillary adenitis, which failed to yield to careful surgical treatment and threatened the necessity of extirpating the involved glands, responded beautifully to the opsonic treatment—complete recovery following only three injections of the “vaccine.” A deep palmar abscess and a case of so-called “psoriasis,” but which bacteriologic examination indicated to be a “staphylococcus dermatosis,” each promptly yielded to the treatment.

Of colon bacillus infections, a case of cystitis plus a pyelonephrosis and a case of mastoid fistula were successfully treated. A complete and permanent closure of the fistula was accomplished within a week.

A perfect recovery from a sacculated pneumococcus empyema in a seven year old girl was effected in seven days.

One case of advanced pulmonary tuberculosis was treated, but without apparent beneficial result other than a slight improvement which followed the first injection. A case of urinary tuberculosis complicated with a pneumococcus infection had been treated with mixed tuberculin and pneumococcus “vaccine” was marked by a progressive improvement.

The author refers to Wright’s sanguine prediction that gonorrheal infections will yield to opsonic therapy, and to the difficulty of making a suitable gonococcus “vaccine.” However, his efforts in the direction of growing the gonococcus for this purpose have been gratifyingly successful and, hence, he has had an opportunity of testing in several cases this line of treatment. He reports among the gonorrheal cases, one of balanoposthitis, one of double epididymitis and perineal fistula, one of subacute epididymitis, two of gonorrheal rheuma-

tism, two of gleet, two of ophthalmia, one of conjunctivitis and two of vaginitis in little girls, all of which yielded within a few days to the treatment and most of them were completely cured.

The author concludes with this hopeful prophecy: “Finally, from what I have already seen, which is tempered by a rather extensive experience in private and institutional medical work, I am prepared to assert that with the proper artificial autoinoculation we can obtain constitutional and local improvement in many subacute and chronic infections entirely beyond anything previously possible in medicine. And I am personally assured that in these bacterial inoculations we possess therapeutic agents of a specificity and potency exceeding anything heretofore employed in the treatment of disease, except possibly the antitoxin of diphtheria.”



**Governmental recognition for services** performed in the domain of science has not been frequent in the United States. In Europe, and more particularly in Germany, instances in which medical men and investigators in lines allied to medicine have been honored by the government are numerous. It would also seem that scientific men are better known and more keenly appreciated by the public in the old world than in the new. We believe that this is not because these men are more deserving than similar workers in America, but rather because the laity has a better knowledge of scientific matters on the other side of the Atlantic. Recently a popular vote has been taken in Germany to decide who are the twelve greatest men in the country. The list begins with the Emperor. The second choice is Gerhard Hauptman, the dramatist. Robert Koch, the scientist, is third, and Ernest Haeckel and William Conrad Roentgen, who have added to the scientific reputation of their country, are the



fourth and fifth selections in the list. The sixth name is the present Chancellor of the Empire, Prince Von Buelow. Seventh and eighth are Max Klinger, the artist, and Richard Strauss, the composer. A socialist, August Beckel, and a soldier, Count Haessler, are ninth and tenth, while the eleventh place falls to Behring, and the twelfth to Begas, the sculptor.

It will be noted that four of those in the list are scientists, three of them being doctors of medicine. We wonder how the medical profession would fare, were a like contest to be held in the United States.

Occasionally scientific merit is recognized in America and it is partially because of such novelty, but more especially because it is eminently deserved, that the promotion of Dr. James Carroll is noteworthy. Doctor Carroll has served in the army since 1874. His epoch making work in Cuba, on the transmissibility of yellow fever, is well known to every medical man. It is pleasing to know that it is also appreciated by our representatives at Washington. Congress, by special act, has raised Dr. Carroll's rank in the army to major, and there is a movement on foot to secure for this courageous army surgeon one of the Nobel prizes.



May fifteenth and sixteenth are the dates of the annual state meeting at Saginaw, and it is hoped that every one who can possibly do so will lay aside his work and go to the meeting. The dates have been carefully selected so that there will be no conflict with the meetings of any of the national societies. The meeting comes at a time when each of us feels more or less like taking a few days' holidays. How can such a holiday be better spent than by going to Saginaw, meeting old friends, and making new acquaintances? At this writing,

enough of the program has been prepared to assure those in attendance a variety of good topics, so that everyone will find something in one or another of the sections to interest him. Let each one come prepared to take part in the program, for he who puts the most in will get the most out of the session.

Saginaw has a reputation for hospitality, and the Committee of Arrangements has been enthusiastically working for the entertainment. All that is now required to make the meeting a great success is a large crowd.

The program will be printed in full in the May issue of the Journal.



The Atlantic City Meeting of the American Medical Association will probably be the largest medical gathering ever held in the western hemisphere. The attendance has been increasing every year, and as Atlantic City has been demonstrated to be one of the most popular meeting places, it is fair to assume that the registration this year will reach nearly 5,000 physicians. The Jamestown exposition will undoubtedly be a strong side attraction. The American Academy of Medicine will meet on Saturday and Monday, June first and third, and the American Medical Association from Tuesday, the fourth, until Friday, the seventh.

The attendance from Michigan should be large. The round trip fare will be that of the single rate plus one dollar—about \$16.00 from Detroit.



Amendments to the Medical Act have been introduced in the House of Representatives by Mr. L'Esperance, one of the Detroit members. The amendments, if passed, will greatly strengthen our medical law, and under it, convictions for practicing without a license should be readily obtained. Particular attention



is called to section 6, wherein are stated the causes for which a certificate may be revoked.

At this writing, the bill is before the House Committee on Public Health, Dr. E. T. Abrams, Chairman. It has been somewhat modified since its introduction. We print the text as it now stands, as it is probable that the bill will be in this form when reported by the Committee.

### HOUSE BILL NO. 20.

Introduced by Mr. L'Esperance, January 11th, 1907.  
Referred to the Committee on Public Health.

Reported substituted, February 8th, and ordered printed for the use of the Committee.

### A BILL

To amend sections 3 and 9 of Act No. 237 of the Public Acts of 1899, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith," as amended by Act No. 191 of the Public Acts of 1903, and Acts Nos. 56 and 161 of the Public Acts of 1905.

*The People of the State of Michigan enact:*

SECTION 1. Sections 3 and 9 of Act No. 237 of the Public Acts of 1899, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith," as amended by Act No. 191 of the Public Acts of 1903 and Acts Nos. 56 and 161 of the Public Acts of 1905, are hereby amended to read as follows:

SEC. 3. On and after the date of the passage of this act, all men and women who are not already legally registered under Act No. 237 of the Session Laws of 1899, and acts amendatory thereto, and who wish to begin the practice of medicine, surgery and midwifery in any of its branches in this state, shall make application to the Board of Registration in Medicine to be registered and for a certificate of registration. This registration and certificate shall be granted to such applicants as shall furnish satisfactory proofs of being at least twenty-one years of age, and of good moral and professional character, but only

upon the compliance with the conditions contained in one or either of subdivisions first, second or third of this section:

First, The applicant shall be registered and given a certificate of registration if he or she shall satisfactorily pass an examination before the board conducted by its members, or by qualified examiners appointed by the board, or by both, including the following subjects: anatomy; physiology; chemistry and toxicology; histology and embryology; bacteriology; pathology; surgery; practice of medicine, including mental and nervous diseases and diseases of children; diseases of the eye, ear, nose and throat; obstetrics; gynecology; medical jurisprudence; hygiene and public health; materia medica and therapeutics; and such additional subjects made necessary by advances in medical education as the board may designate, said examinations to be conducted as follows:

(a) The examination may be taken as a whole on all of the subjects as aforesaid, and shall be designated as the primary-final examination, or said examination may be divided into a primary examination upon the subjects of anatomy; physiology; chemistry and toxicology; histology and embryology; and bacteriology, as the board may determine, and a final examination upon the remaining subjects as aforesaid, not included in the primary examination;

(b) The applicant shall file with the secretary of the board, at least one week prior to an examination, an approved application, through a blank furnished by the board, covering the detail of his personal history and his preliminary and medical education, and such other evidence of qualification as the board may require;

(c) The board shall make such rules and regulations governing the conduct of the examinations as it shall deem necessary, and wilful violation of such rules and regulations shall subject the applicant to the loss of the examination and fee;

(d) The examination shall be made as practical as possible in order to test the applicant's qualifications as a practitioner of medicine, the method of which shall be in accordance with the board's best judgment, and may be in writing, or by an oral, or by both.

(e) The questions on all of the subjects listed under this section for examination, with the exception of materia medica, therapeutics and prac-

tice of medicine, shall be such as may be answered alike by all schools of medicine;

(f) The applicant shall if possible be examined in materia medica, therapeutics and practice of medicine by those members of the board, or by qualified examiners appointed by the board, belonging to the same school as the applicant; and no applicant shall be rejected because of his adherence to any particular system of practice;

(g) An average percentage of at least seventy-five per cent of correct answers on all of the subjects listed under this section, and of not less than fifty per cent on each subject, shall be required of every applicant: Provided, That in the case of a qualified applicant who has been in reputable practice at least five years, at the discretion of the board, this requirement of minimum percentage may be modified by the board to meet the exigency of the case;

(h) An accepted applicant for the primary-final examination or for the final examination, as noted in subdivision first (a) of this section, shall have a diploma from a legally incorporated, regularly established and reputable college of medicine within the states, territories, districts and provinces of the United States, or within any foreign nation (provided such foreign nation accord a like privilege to graduates of approved medical colleges of this state) having at least a four years' course of eight months in each calendar year, as shall be approved and designated by the Board of Registration in Michigan: Provided, That such applicant shall have, prior to the beginning of his course in medicine, or registration, or matriculation in an approved medical college, a diploma from a recognized and reputable high school, academy, college or university, as shall be determined by said board, or an equivalent qualification, or shall have a certificate from examiners appointed by and in accordance with the regulations of aforesaid board of having passed an examination equivalent, at least, to the minimum standard of preliminary education adopted and published by the board, and at such time and place as the board may designate. The applicant shall pay to such examiners a fee of five dollars prior to the examination: Provided, however, that a higher requirement of preliminary education shall not apply to those students who, on the date of the passage of this act, were regularly registered as students of legally organized and reputable medical colleges, as shall be determined by

said board, but that the standard of preliminary education shall equal, at least, the minimum standard in force in this state at the date of aforesaid registration of students: And Provided also, That a higher requirement of education shall not apply to those graduates of legally organized and reputable medical colleges, as shall be approved of by said board, who had graduated from such colleges prior to the date of the passage of this act, but that the standard of medical education shall equal at least the minimum standard in force in this state at the date of graduation;

(i) Students of medicine in regular attendance at a recognized medical college, as shall be determined by this board, and endorsed by said board as having fulfilled the legal requirements of the state for entrance to, or matriculation in recognized medical colleges, and who have completed, in accordance with the board's adopted and published minimum standard of medical education in such recognized medical college, through attendance and examination, and not prior to the termination of the second year in such institution, among others, the subjects of anatomy; physiology; chemistry and toxicology; histology and embryology; and bacteriology, as the board may determine, shall have the right to a primary examination, as recorded under subdivision first (a) of this section, upon such prescribed subjects, said examination to be held at such times and places as may be designated by the board, and to receive from the board a certificate showing the credits received thereon in the several subjects upon which an examination shall have been had as aforesaid, and such credits obtained shall, at the election of the student, be included in and form a part of the examination heretofore called the final examination under subdivision first (a) of this section: Provided, That subsequent to graduation from a recognized medical college, in said final examination for a certificate of registration, the applicant shall, if presenting said credits to the board at the time of his application for examination, be examined only in those remaining subjects prescribed under subdivision first of this section and which have not been listed as subjects of aforesaid primary examination;

(j) The applicant shall pay to the board a fee of twenty-five dollars prior to the examination, divided as follows: Ten dollars for the primary examination, and fifteen dollars for the final examination. If such examinations are taken together, or as a whole, the fee shall be twenty-five



dollars for such primary-final examination. No additional fee for registration shall be charged to those who successfully pass the examinations: Provided, That this schedule of fees shall not apply to those students in regular attendance in medical colleges prior to the date of the passage of this act;

(k) The board shall, in the recognition of medical colleges, at its discretion, list such colleges in three or more classes or groups: Group I including those colleges who fulfill the advanced requirements of this act, and who maintain the board's standard of preliminary and medical education; Group II including those colleges who have fulfilled the standard of medical education demanded by this state at the date of the diploma, and Group III including those colleges whose courses are recognized only for advanced standing in recognized colleges listed under Group I: Provided, That a diploma issued by a medical college listed by the board in one or more of the groups or classes as aforesaid, shall be recognized as a qualification under subdivision first (h), second and third in this section, in the event only of it representing the actual standard of preliminary and medical education determined and set by the board.

1. The Board of Registration in Medicine shall, from time to time, adopt and publish a minimum standard of preliminary and medical education, and no high school, academy, secondary school, college, university or medical college, or other institution or board shall be approved and designated, or its diploma or certificate be recognized by said board under subdivision first of section three of act, unless, in the judgment of the board, it conforms with such standards.

2. The applicant may, at the discretion of the board, be registered and given a certificate of registration if he shall present satisfactory proof of the possession of a certificate of registration or license which has been issued to said applicant in any foreign nation where the requirements of registration, at the date of the license, shall be deemed by said Board of Registration in Medicine to be equivalent to those of this act, and shall otherwise conform to the restrictions and regulations adopted and in force by the board relative to the recognition of, or the endorsement of certificates between states: Provided, Such country shall accord a like privilege to holders of cer-

tificates from this board. The fee for registration from applicants of this class shall be fifty dollars;

3. The applicant may, at the discretion of the board, be registered and given a certificate of registration if he shall present satisfactory proof of the possession of a certificate of registration or license which has been issued to said applicant within the states, territories, districts or provinces of the United States where the requirements for said applicant's registration, at the date of his license, shall be deemed by the Board of Registration in Medicine to be equivalent to those of this act: Provided, That said applicant shall otherwise conform to the restrictions and regulations adopted and in force by the board relative to the recognition of, or the endorsement of certificates between states. The fee for registration from applicants of this class shall be fifty dollars;

4. If any person shall unlawfully obtain and procure himself to be registered under this section, either by false and untrue statements contained in his application to the Board of Registration in Medicine, or by presenting to said board a false or untrue diploma or license, or one fraudulently obtained, he shall be deemed guilty of a felony, and on conviction thereof shall be punished by a fine of not less than three hundred dollars, nor more than five hundred dollars, or imprisonment at hard labor for not less than one year, or more than three years, or both, at the discretion of the court, and shall forfeit all rights and privileges obtained or conferred upon him by virtue of such registration as a practitioner of medicine;

5. Any person who shall swear falsely in any affidavit or oral testimony made or given by virtue of the provisions of this act, or the regulations of the Board of Registration in Medicine, shall be deemed guilty of perjury, and upon conviction thereof shall be subject to all the pains and penalties of perjury;

6. The State Board of Registration in Medicine may refuse to issue the certificate of registration herein provided for, to any person in the habit of getting intoxicated; to any person who is a victim of the drug habit; to any person convicted of any offense involving moral turpitude, and to any person who has been guilty of unprofessional conduct.

Said Board may also, for like causes, revoke



any certificate of registration heretofore or hereafter issued upon said Board, and said Board may also revoke any such certificate issued by said Board through error or mistake or by reason of the applicant having made false or fraudulent statements or representations to said board in order to procure the issuance of such certificate. Said board may also revoke any such certificate of registration of any physician who inserts or causes to be inserted in any newspaper, pamphlet, circular or other written or printed paper any advertisement relating to venereal diseases or other matter of obscene or offensive nature. Said board may also revoke any such certificate of registration of any physician who, for the purpose of procuring patients, employs any solicitor, capper, or drummer, or who subsidizes any hotel or boarding house, or pays or presents to any person any money or other valuable thing for bringing patients to him.

"Unprofessional conduct" within the meaning of this act is hereby defined to be:

- (a) Willful betrayal of professional secrets.
- (b) Procuring or aiding, or abetting, in procuring a criminal abortion.
- (c) Accepting any fee for advising any patient that a manifestly incurable disease can be permanently cured.
- (d) Inserting any advertisement in any newspaper, or pamphlet, or upon any handbill or sign-board, referring specifically to diseases or ailments of the genito-urinary or intestinal or uterine organs; or to any medicine or treatment for the regulation or re-establishment of the menses; or to any medicine or treatment for producing an abortion.
- (e) Being connected professionally with, or lending his name to any person engaged in the illegal practice of medicine or being connected professionally with any person, firm, or corporation advertising contrary to the provisions of this act.

Any such certificate may be revoked by said Board at any regular or special meeting thereof. Before any certificate of registration shall be revoked pursuant to the provisions of this act, it shall be the duty of the Secretary of said board to give to the holder of such certificate, thirty days' notice, in writing, of the time when and the place where, the said board will meet to consider the question of the revocation of such cer-

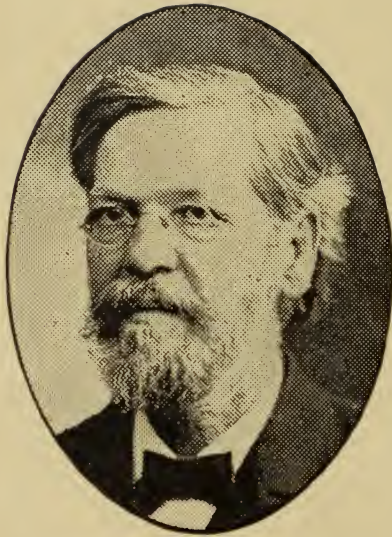
tificate. Such notice shall set forth, specifically, the charge or charges made against the holder of such certificate, and may be served personally or by registered mail. At the time and place stated in said notice, said board shall proceed to investigate the charges set forth in said notice, and the holder of such certificate shall be then and there entitled to appear personally and by counsel and be heard regarding the truth of such charges. If the said Board of Registration, or a majority thereof, shall determine that the charges so set forth in said notice are truth, such certificate of registration shall thereupon be revoked, and due entry thereof be made upon the records of said board. It shall thereupon be the duty of the Secretary of said board to notify the holder of such certificate of registration of the action taken by said board.

Said board shall have the right to subpoena witnesses upon a subpoena signed by the President of said board and attested by the Secretary thereof directed to such witnesses, and which subpoena may be served by any person authorized to serve subpoenas from courts of record in this state, and the attendances of witnesses may be compelled by attachment issued by any Circuit Court in the state, upon proper showing that such witness has been properly subpoenaed and has refused to obey such subpoena. The person serving such subpoena shall receive the same compensation now allowed by law to sheriffs and other officers for serving subpoenas. Said board shall have power to examine witnesses under oath, such oath to be administered by any member of said board. Any person who shall refuse or neglect to appear before said board, in response to its subpoena, or testify as herein provided, shall be deemed guilty of a misdemeanor, and shall be punished by a fine not exceeding five hundred dollars, or by imprisonment in the state's prison for a period of not more than one year, or by both such fine and imprisonment in the discretion of the Court.

Witnesses subpoenaed pursuant to the provisions of this act, shall be entitled to receive the same compensation as is allowed by law to witnesses in the Circuit Courts of the state. The compensation of witnesses and of the sheriff or other officer for serving subpoenas shall be paid by the Board of State Auditors upon the certificate of the President and Secretary of said Board of Registration in Medicine.



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**Lyman W. Bliss, M. D.**  
**1835 - 1907**



**Lyman W. Bliss, M. D.**

The funeral of Dr. Lyman W. Bliss, one of the oldest and one of the best known practitioners of the Saginaw Valley, was attended Sunday, February 24th, at the Methodist Church, Saginaw, by a large number of friends, and his body deposited in the vault in Forest Lawn, there to remain until some bright spring day when, according to his request, it will be taken to its final home at Oakwood.

Doctor Bliss went South a short time before his death, hoping to receive benefit to his health, which had been failing, more especially since the loss of his brother, the late Governor, but conditions took an unfavorable change, and the good man died in the hospital in San Antonio, Texas, at eight o'clock in the evening of February 19th, only a few hours after repeating, apparently to himself, while on his way to the hospital,

"We're going down the valley, one by one."

Doctor Bliss was born at Smithfield, Madison Co., New York, July 12th, 1835, receiving his early education there and at Peterboro Academy, New York, followed by a course at Hobart College, Geneva, New York, where he graduated, and later held a professorship, but when the call to the battlefield came, this position was at once resigned, and in 1862 he was with the Army of the Potomac, duly commissioned Assistant Surgeon of the Tenth New York Cavalry, and soon advanced to the position of Surgeon of the Fifty-first New York. He became Brigade Surgeon and Acting Medical Director, and was mustered out of the service August 18th, 1865, with the rank of Major.

In 1866, he came to Saginaw, which has since been his home and where he soon acquired a large and lucrative practice.

Doctor Bliss was married three times. His first wife, and mother of his chil-

dren, was a daughter of the late Dr. Jerome. She died in this city April 26th, 1872. September 18th, 1877, he was married to Mrs. Harriet (Granger) Miller, who died October 3rd, 1887. November 2nd, 1892, he was united in marriage with Miss May Cummiskey, who survives him. He leaves two children, Dr. James W. Bliss and Mrs. Anna Bittman. A son, E. Stanton Bliss, died April 22nd, 1905. One son died in infancy, July 5th, 1872.

His professional work overshadows everything else, yet he had been identified with several important business interests. For a score of years the firm of A. T. Bliss & Bro., composed of A. T. and L. W. Bliss, was one of the foremost lumber firms of the Valley.

Not a seeker for political favors, yet he was twice Mayor of Saginaw, besides holding aldermanic honors. He was President of the State Medical Society in 1891, and at the Grand Rapids meeting in 1904 he was made an honorary member. In the Bliss Hospital he was a moving spirit, and in the Saginaw Valley Medical College he was an earnest and enthusiastic worker, and its President until it was merged into the Michigan College of Medicine.

He worked until near the time of the summons across "The Great River," and when he said of the Medical Profession,

"It is the hardest, the noblest, the busiest, and the most sacred profession the world has ever known;—the hardest, since it is fraught with dangers, hardships and heartaches; the busiest, since the doctor works day and night, and seven days in the week; the noblest, for though God created man, and Christ redeemed him, the art of healing was given to man himself; the most sacred, since the doctor is the first and last person to enter the home," he spoke not of the profession as he had theorized about it, but as he had practiced it for fifty years.

SIDNEY I. SMALL.

## Book Notices

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**A Text-Book of Diseases of Women.**—By J. Clarence Webster, M. D. (Edin.), F. R. C. P. E., F. R. S. E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. Large octavo of 712 pages, with 372 text-illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$7.00 net; Half Morocco, \$8.00 net.

In the preface, Webster states that, in writing this book, he was actuated by the following aims: "To give prominence to the scientific basis of each subject under consideration;" "to study clinical phenomena in their widest relationships;" "to insist upon exercising caution in the adoption of recklessly advocated procedures;" "to give emphasis to methods which have proved satisfactory in the author's experience." We believe that Webster has succeeded well in carrying out these aims. The book is carefully written and excellently illustrated. It bears the stamp of the author's personality, many of the chapters being more like monographs than portions of a text book. The descriptions are unusually clear, the diction being simple and at the same time scientific.

The work opens with 100 pages of anatomy, the discussion being complete and amply illustrated. Mooted questions are printed in fine type. Chapter III, covering the bacteriology of the genital tract, is an excellent one. Chapter IV, on "Neuroses in Relation to the Pelvic Diseases in Woman," shows the author's breadth of view. In discussing neurasthenia, Webster says: "Operative treatment is necessary in many cases where there is a distinct remediable pelvic or abdominal lesion. But it must be insisted upon that these shall not be placed in the forefront of the therapeutic measures at our disposal, nor shall they be undertaken until the entire state of the patient has been investigated, and every effort made to improve her condition on the lines which I have laid down."

In the description of bimanual examination, the text advocates the use of the left hand on the abdomen and the fingers of the right hand in the vagina. The illustrations reverse this. For obvious reasons, the method as depicted and not as described, should be followed.

The author is an advocate of the Kelly method of cystoscopy, but prefers the Trendelenburg to the knee-chest posture. Discussing specula: "For

mere purposes of diagnosis, the gynecologist rarely nowadays requires to use any speculum; it is generally found that the instrument is most used by the practitioner who has had little experience in the diseases of women."

Particular emphasis (none too strong) is laid on asepsis. The author uses clove oil and alcohol for the hands; advocates the dry method of wearing rubber gloves; employs catgut prepared by hardening in formalin and boiling in water; and employs chinolol as an antiseptic (dusting powder, irrigations, gauze, etc.).

A particularly good section is that on the management of peritoneal surfaces, drainage, etc. Complications after laparotomy should receive more space.

The affections of the various organs are taken up seriatim and the author's methods clearly set forth.

The book impresses one as being authoritative. It is exceptionally well printed and is a distinct addition to American gynecologic literature.

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**Organic and Functional Nervous Diseases.**—By M. Allen Starr, M. D., Ph. D., LL. D., Professor of Neurology in the College of Physicians and Surgeons, New York; ex-President of the American Neurological Association and of the New York Neurological Society. Second edition, thoroughly revised. Octavo, 824 pages, with 282 engravings and 26 full-page plates. Cloth, \$6.00 net; leather, \$7.00, net. Lea Brothers & Co., Philadelphia and New York, 1907.

It was only in 1904 that the work on Organic Nervous Diseases, of which this is a second edition, was warmly welcomed by the profession and quickly took its place as easily the peer of any of several excellent works on diseases of the nervous system by American authors.

Professor Starr has the happy faculty of being logical, clear cut, forceful, and impressive, and all of these qualities are likewise in evidence in the work of his pen.

The earlier volume at once took a place which it will not soon lose and a careful comparison of this later book with the former, while it shows a revision of the whole edition here and there, yet reveals no great material change. Indeed, the matter covered by the first edition is here shortened about twenty pages, but the whole is re-enforced by an addition of some seven chapters upon the functional diseases, covering the spasmodic neuroses, epilepsy, paralysis agitans and tremor, tetany, neurasthenia and the occupation neuroses, hysteria, and migraine.



The prestige justly attaching to the first edition will not suffer by this second volume, which covers still more completely the field of nervous diseases.

The work of the publishers is in every way excellent and the book is worthy an easily reached place among the much-consulted books.

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**A Text-Book of Pharmacology.**—Including Therapeutics, Materia Medica, Pharmacy, Prescription-Writing, Toxicology, etc. By Torald Sollmann, M. D., Assistant Professor of Pharmacology and Materia Medica, Western Reserve University, Cleveland, Ohio. New (2d) Edition. Octavo of 1070 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$4.00 net; Half Morocco, \$5.00 net.

The second edition of Dr. Sollmann's text book of Pharmacology has been made necessary by the appearance of the new Pharmacopeia and by the advances which have been made in the subject since his first edition was published in 1901. These advances have necessitated practically re-writing the entire book, which at the same time has been enlarged in several of its divisions, so that it now contains an immense store of information of value to the student and investigator.

The short section on Pharmacognosy is followed by some chapters on Pharmacy and these by Toxicology, Prescription-writing and flavoring of medicine. The main section of the book under the title of Pharmacology, Therapeutics, and Materia Medica, covering some 650 pages, composes part two. An extensive laboratory course is provided for in part three, while in part four are treated many subjects of interest in connection with the science, such as, the arrangement of a Materia Medica Museum; bibliographic references, a reference table of chemicals with their formulae, molecular weights and solubilities (from the U. S. P.); dose table, and finally a bibliographic register arranged alphabetically by the authors' names.

This short summary gives an idea of the wide scope of the work and the immense amount of information contained in it. At the same time we think the propriety of including some of these sections might be called in question and give rise to differences of individual opinion. Such sections might be mentioned as that in Pharmacognosy and Pharmacy, these naturally in such a work have to be short and incomplete. The same criticism might also be made of the chapter in "Historical Development of Therapeutics"

which could hardly be adequately treated in the 6½ pages devoted to it. The reference table of drugs with their formulae and weights might perhaps be omitted without loss.

Of the material itself it would hardly be necessary to make criticism, as the high esteem in which Dr. Sollmann is held as an authority on the subject would form a sufficient guarantee that a book published by him would represent the best opinion of the day.

All through the book the important points are printed in large type while the minor are in smaller print, making a great saving in the size of the book. This arrangement, while absolutely essential, is not without danger. In the first place the average student will rarely use the fine print, making up his mind it is not important, but what is of more importance sometimes is the difficulty of deciding which sized type to use in an individual case. An important example of this is in connection with the much debated question of the action of strychnine on the heart muscles. On page 148 in large type it is said there is a direct action on the cardiac muscle. Six lines further down the page, the statement is made in fine print that the heart muscle is not affected; while on page 150 it is said the stimulant and later depressant action by strychnine on the heart is seen only when solutions of high concentration are perfused through the heart and that the effect is not concerned in the therapeutic action and probably not in the toxic action. In the light of the later statements one is led to question why emphasis is laid upon it in the earlier sentences.

Under treatment of atropine poisoning we note the author advises that pilocarpine should be given until the mouth is moist. The value of the remedy may be questioned in view of the fact that atropine is so much more powerful in its action than pilocarpine, and also that the danger point in atropine poisoning, viz, the respiratory center, is not affected by pilocarpine. And so it would be possible to go on through the book citing statements which might call forth differences of opinion, but these are inevitable in a science which is as new and growing as fast as Pharmacology. As stated before, it is an excellent reference book for the student and also for the investigator. To the clinician, however, the book would prove a disappointment, if he expects to find in it detailed directions for the use of drugs in practice. This branch of the science, the author says in his preface, should be sepa-



rated from the more strictly scientific side of Pharmacology.

The details for a very complete laboratory course are given, and these may be of assistance in developing such a course, or to an instructor in planning demonstrations.

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**International Clinics.**—Vol. IV., 1906. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia. J. B. Lippincott Company, 1906. Price, cloth, \$2.00.

This volume contains 22 original papers by men for the most part well known to the profession. The papers are all good. Several are especially suggestive, notably those on the Treatment of Chronic Constipation, by J. Dutton Steele, on Obscure Renal Hematuria, by Arthur R. Elliott, and on Myxedematous Infantilism and Incomplete Myxedema by Roger S. Morris, formerly of Ann Arbor. Important papers by Dieulafoy on Syphilitic Aortitis and Bernard on the Adrenals are in the section of medicine.

George G. Ross contributes a study of fractures of the lower extremity, excellently illustrated by X Ray photographs. De Lee's "Placenta Previa and its Treatment" is exhaustive and is alone well worth the price of the book.

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**Atlas and Text-Book of Human Anatomy.**—Volume I. By Professor J. Sobotta, of Wurzburg. Edited, with additions, by J. Playfair McMurrich, A. M., Ph. D., Professor of Anatomy at the University of Michigan, Ann Arbor. Quarto volume of 258 pages, containing 320 illustrations, mostly all in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$6.00 net; Half Morocco, \$7.00 net.

It has been said that one must "learn anatomy seven times," or in other words, that one must constantly review the subject in order to keep the details in mind. We know of no better investment of time than that obtained by going over anatomy, and for the average physician, who does not have access to a dissecting room, the study of a good atlas is the best method of review.

The original Sobotta atlas was arranged with text and illustrations separate. McMurrich has included the illustrations with the text and has thus improved on the original.

The nomenclature used is that of the Basle Committee on Anatomical Nomenclature, many of the terms, however, being Anglicized. When-

ever these terms are unfamiliar, the old terms are included in brackets.

The illustrations are well nigh perfect. The shading of the black and white drawings is splendid, the third dimension being brought out so clearly that the bones and ligaments stand out in a most natural manner. Multicolor lithography is used for the colored plates and used most successfully.

The press work is the equal of any medical book we have seen.

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**Atlas and Text-Book of Human Anatomy.**—Volume II. By Professor J. Sobotta, of Wurzburg.

The second volume of the Sobotta-McMurrich atlas contains the description and plates of the viscera, including the heart. The latter organ is usually described with the vascular system, but the editor has included it among the viscera, because it is usually dissected at the same time as the other organs—a logical reason, we believe.

The plates showing the mouth, teeth, pharynx and contiguous glands are numerous, especially clear, and uniformly excellent. The section on the development of the peritoneum is very helpful, and taken in connection with the description of the latter, serves to clearly elucidate this region, a concise understanding of which is more or less difficult.

The plates showing the various organs leave nothing to be desired. They are sufficiently numerous to show every detail most carefully.

There is a good index.

The third volume, completing the set, will soon be issued.

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**Thornton's Pocket Medical Formulary.**—New (8th) edition, revised to accord with the new U. S. Pharmacopoeia. Containing about 2,000 prescriptions with indications for their use. In one leather bound volume. Price, \$1.50 net. Lea Brothers & Co., Philadelphia and New York, 1907.

This formulary, printed and bound so as to be convenient for the pocket, is a good one. Diseases are arranged alphabetically and under each, are prescriptions from which the physician can choose. It had been revised to meet the changes of the new pharmacopoeia. Indications and annotations as to the use of many of the formulæ

are given. That such a list of formulae is appreciated is shown by the frequent editions which have been printed.

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**Conservative Gynecology and Electro-Therapeutics.**—A Practical Treatise on the Diseases of Women and Their Treatment by Electricity. By G. Betton Massey, M. D., Attending Surgeon to the American Oncologic Hospital, Philadelphia; Fellow and ex-President of the American Electro-Therapeutic Association. Fifth Revised Edition. Illustrated with chromo-lithographic plates, half-tone plates, and engravings. F. A. Davis Company, Philadelphia, 1906.

It speaks well for conservatism in gynecology that this volume is in its fifth edition. Electro-therapeutics has passed its "fad" stage, and probably has passed that inevitably following stage of comparative neglect, and is now finding its proper level. As an exponent of its merits, Dr. Massey makes no extravagant claims and does not discredit legitimate surgery. But he does constantly inveigh against unnecessary celiotomies and ruthless deletion of the female organs. It is probable, however, that the harmful surgery is done by unskilled gynecologists, rather than by accredited specialists; and in the same measure, electrotherapy works its harm in being practised by tyros.

There is danger in any book which advocates earnestly any one line of procedure; there is danger in a purely surgical treatise and there is danger in this volume, because many readers, lacking in discrimination, will hail the text as a gospel and espouse electricity as their cure-all. In short, individuals will recapitulate the history of the whole profession in a "fad."

The subject in question is undoubtedly well covered. It gives a thorough explanation of the simpler principles of electricity, of its more complex theories as associated with medical therapy, and of the minutiae of its application. The details of this form of treatment are so infinite as to impress one with the hope that no man will undertake electro-therapeutics without careful training and complete mechanical equipment. It is not a science to toy with, nor to use as an idle placebo, and herein lies its danger.

Profuse illustrations assist the somewhat verbose text, and an interesting table is added of 110 case of fibromata treated by the author with electricity. The index is rather scanty.

**Tuttle on Diseases of Children.**—A Pocket Text-Book of Diseases of Children. By George M. Tuttle, M. D., Attending Physician to St. Luke's Hospital, the Martha Parsons Hospital for Children and Bethesda Foundling Asylum, St. Louis, Mo. New (2d) edition, thoroughly revised. In one 12mo volume of 392 pages, with 5 plates. Cloth, \$1.50, net; flexible leather, \$2.00, net. Lea's Series of Pocket Text-Books, edited by Bern. B. Gallaudet, M. D. Lea Brothers & Co., Philadelphia and New York, 1907.

The author states in his preface that this work is intended to furnish an outline for the beginner in the study of pediatrics. The book contains a clear and concise, well arranged exposition of the subject. Special attention has been given to the conditions characteristic of this period. The therapeutics are rational and conservative. It is a creditable and up-to-date work of its kind and can be recommended to anyone desiring such a catalogue of facts.

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**Text-Book of Psychiatry.**—A Psychological Study of Insanity for Practitioners and Students. By Dr. E. Mendel, A. O. Professor in the University of Berlin. Authorized Translation. Edited and enlarged by William C. Krauss, M. D., Buffalo, N. Y., President Board of Managers Buffalo State Hospital for Insane; Medical Superintendent Providence Retreat for Insane; Neurologist to Buffalo General, Erie County, German, Emergency Hospitals, etc.; Member of the American Neurological Association. 311 pages. Crown Octavo. Extra Cloth, \$2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry street, Philadelphia, Pa.

Dr. Krauss's translation of this excellent study of psychiatry by Professor Mendel, from a psychological side, aims to bring to American practitioners and students with as few changes as possible the work of a teacher whose labors in his chosen field have been much appreciated in Germany. The general trend of the work may be gathered from this synopsis: Part I treats of general, and part II of special psychiatry, and under general symptomatology are considered the various disturbances of thought, memory, feelings (sensory and judicial), disturbances in the condition of the mind, disturbances of consciousness and self-consciousness, disturbances of speech, of writing, and of the expression of the countenance, ending with the pathological disturbances in the condition of the body. The etiology of mental diseases is gone into at some length, as also the outbreak, course, duration and result of psychoses, pathological anatomy, diagnosis, prognosis, and treatment.

All of the above might lead to the supposition that this is a ponderous tome, repellent to the busy man with but little time for this sub-

ject, while quite to the contrary it is a neat, compact, and inviting volume, offering in an attractive and scientific form a veritable *multum in parvo* just the book for the shelf of the busy man, who still would be well informed upon a subject quite generally neglected.

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**The Anatomy of the Brain**, a text book for medical students, by Richard H. Whitehead, M. D., Professor of Anatomy in the University of North Carolina. Philadelphia, New York, Chicago. F. A. Davis Company, Publishers.

This little compend by the Professor of Anatomy in the University of North Carolina aims to supply to medical students a clear and concise treatise on this difficult and often (to the student) hazy subject. It takes up successively the divisions of the encephalon, its surface anatomy and internal anatomy and, finally, its conducting paths.

A uniform nomenclature is adhered to, and the terms recommended by the German Anatomical Society inserted whenever possible. It will not attract the careless or the superficial student, but it will prove a help and a convenience to the earnest student, who wishes to ground himself well and have a clear and scientific conception of the anatomy of the brain.

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## County Society News

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### BENZIE.

At the last meeting of the Benzie County Medical Society it was unanimously voted to charge not less than \$1.00 for examinations for fraternal beneficiary societies and to make no examinations for old line companies for less than \$5.00. It was also voted to charge \$1.00 extra for all visits made between 9 p. m. and 7 a. m.

Although our society is small it is in a very lively condition.

E. J. C. ELLIS, Sec'y.

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### CALHOUN.

The Calhoun County Medical Society met for its first quarterly session of 1907 on March 5th, in Albion. The program consisted of a paper on "Infant Mortality" by H. M. Rich of Detroit, "Milk Analysis" by A. W. Nelson of Battle

Creek, and the exhibition of a device for application of plaster cast in case of spinal or hip disease, by A. J. Abbott, of Albion. The committees of the society are as follows: Scientific Work and Program, A. S. Kimball, Geo. Hafford, A. W. Nelson; Ethics and Grievances, W. C. Marsh, S. K. Church, H. E. McLennan; Public Health and Hygiene, W. H. Haughey, L. S. Joy, A. J. Abbott; Epidemics and Endemics, C. G. Vary, E. L. Eggleston, R. C. Stone; Medical Jurisprudence, A. W. Alvord, J. C. Brown, Wilfrid Haughey; Necrology, A. D. Bangham, W. H. Riley, G. B. Gesner.

A. S. KIMBALL, Sec'y.

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### GRAND TRAVERSE.

At a recent meeting Dr. E. B. Minor read a paper on Scarlatina. Dr. Minor said in part:

Patients having recent wounds, or having undergone operations of trivial or major importance and women in childbed are unusually susceptible and are almost sure to contract scarlatina if exposed. \* \* \* The majority of cases are produced by contagion, through clothing, air, food, or domestic animals and contagion gains entrance by being inhaled or through the alimentary tract or by the blood directly, as children have been born in all stages of the disease. \* \* \* The incubation period is short \* \* \* and the invasion is usually abrupt. There are clinical types in which all premonitory symptoms are absent, the only one being a slight eruption and right here let me say that this extremely mild form may be the source of very malignant types, as I have many times seen. These mild cases are the most dangerous to the public, as it often happens that the physician has not been called until the period of desquamation, or perhaps not at all. \* \* \* The diagnosis may be made by the sudden onset of symptoms after exposure, the blush on pharynx and tonsils, the strawberry tongue, the higher temperature and early appearance and distribution of the rash. \* \* \* Complications are to be feared if the fever persists after the rash fades, and of these otitis is a frequent one in young children, especially in the winter months, synovitis, and the dreaded nephritis. \* \* \* The treatment: The patient should be isolated and kept in strict quarantine until desquamation is complete. \* \* \* Diet should consist of milk, broths and fruit juices and the drinking of copious amounts of water should be encouraged.



The urine should be examined frequently. \* \* \* Hydrotherapy is an essential part of the treatment. Encourage eruption by hot water or hot lemonade and warm baths—three to four each day. Inunctions may be used early in the disease to allay itching and later to prevent diffusion of scales. Much attention should be given the nose and throat: an atomizer should be used with some warm alkaline antiseptic. Careful removal of these secretions and attempts at disinfection of nose and throat will prevent ear difficulties." \* \*

Drs. Garner, Chase and Holdsworth reported cases.

M. M. CANAVAN, Sec'y.

#### GRATIOT.

The first quarterly meeting of the Gratiot County Medical Society was held at the Alma Sanitarium, Feb. 28th, and was fairly well attended.

Dr. C. B. G. de Nancrede of the University of Michigan, read a very instructive paper, "Chronic Cholecystitis, with or Without Calculi, a Surgical Disease."

Dr. de Nancrede, while discussing his subject from a surgical standpoint, nevertheless impressed the general practitioners with the danger of delay, as many of us are wont to do.

Dr. I. M. Brainard, of Alma, read a paper on "Opsonins and Bacterial Vaccines," written by E. M. Houghton, M. D., Detroit.

Dr. J. N. Day, of Alma, read a paper on "Anuria and Oliguria."

After adjourning, the society was served lunch by resident physicians.

The officers of the society are: President, Edgar A. Bagley, M. D., Alma; vice-president, Chas. S. Watson, M. D., Breckenridge; secretary-treasurer, W. F. McClinton, M. D., Alma.

N. F. McCLINTON, Sec'y.

#### HOUGHTON.

The following letter and pledge have been sent to every physician registered in Houghton county:

WHEREAS, Many of the Life Insurance Companies have notified their Medical Examiners of a reduction of the Examining Fee from \$5.00 to \$3.00, and

WHEREAS, We as physicians, realizing the responsibility incident to proper examination of the individual, believe such reduction to be unjust, therefore be it

*Resolved*, That the Houghton County Medical Society, by motion carried, respectfully requests all physicians, in and out of the Society, legally authorized to practice medicine in Houghton county, to sign the enclosed pledge.

Said pledge not to be rendered binding unless signed by every member of the Houghton County medical profession.

As soon as every pledge has been returned to the Secretary of the County Society, properly signed and witnessed, printed forms announcing the stand taken will be mailed the physician for forwarding to the insurance companies.

#### Pledge.

I hereby pledge my word of honor and support, not to make any Life Insurance Examinations for so-called Old Line Companies involving insurance to the amount of \$1,000.00, for less than \$5.00.

Examinations involving insurance to the amount of \$500.00 or less, \$3.00, or when urine examination not required, \$2.00.

And all Benevolent or Protective Associations or Societies involving any amount of insurance for less than \$2.00.

.....Houghton Co., .....1907  
Witness:

..... Signed.....M. D.

(This Pledge to be in force only after every Physician legally authorized to practice medicine in Houghton County, has made a similar Pledge.)

C. W. YARRINGTON, Sec'y.

#### LENAAWEE.

The regular meeting of the Lenawee County Society was held February 12, 1907. The program consisted of an address by the new president, Dr. D. L. Treat; a paper on the "Non-Operative Treatment of Diseases of the Female Pelvis," by Dr. O. Whitney; Dr. A. W. Chase read a paper on "Professional Courtesies from a Business Standpoint." Dr. Kirkpatrick presented two very interesting cases of senile gangrene.

The society now has the largest membership in its history and there is much enthusiasm.

The officers are: President, Dr. D. L. Treat;

vice president, Dr. O. N. Rice; secretary-treasurer, Dr. J. C. Johnson.

J. C. JOHNSON, *Sec'y.*

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#### MIDLAND.

At the last meeting of the Midland County Society, the following officers were elected for the year 1907: President, Dr. J. H. Johnson, Midland; vice-president, Dr. E. J. Daugher, Midland; secretary and treasurer, Dr. G. Sjolander, Midland; delegates, Dr. J. M. Johnson; alternate, Dr. E. J. Daugher.

Dr. W. H. Brock was appointed to see to the programme for our meetings during the year and the first subject taken up will be "The Physician, His Own Microscopist," by Dr. C. O. High, of Coleman. It was also decided at this meeting that the physicians belonging to this society shall charge not less than two dollars for an examination for an insurance in fraternal societies and not less than five dollars for old line insurance.

G. SJOLANDER, *Sec'y.*

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#### TRI-COUNTY.

The Tri County Medical Society has rented rooms to be fitted as a laboratory and as a place for study, and the physicians of Cadillac have given up two nights of each week for investigation.

The physicians of Wexford county have agreed to do the county poor work for \$1,000 per year and this sum is to be paid to the treasurer of the society for the support of the society.

We had a good meeting Thursday, March 7, at which we endeavored to carry out Dr. McCormack's line of work. A committee has been appointed to purchase lanterns for showing specimens, also a manikin and a blackboard.

The delegates to the state convention are Dr. Wallace of Manton and Dr. Wardell of Cadillac.

W. J. SMITH, *Sec'y.*

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### Correspondence.

*To the Members of the Medical Profession in Michigan.*

The reported interviews with certain Detroit physicians appearing lately in the papers again brings up an old discussion, if we may call such

a one-sided contention by that name. It is the proposition of transferring the work of the seniors in the Medical Department of the University of Michigan to Detroit, or perhaps more correctly speaking, the question of amalgamating the Medical Department with the Detroit College of Medicine.

That some of the promoters of the scheme are honestly, though inadvisedly, I think, advocating this change as a means of benefiting both institutions and the profession generally, I do not question. However, the subject is revived with such unseemly contumacy that one can hardly take it for granted that it is the noble sacrifice, on the part of certain interested individuals that they would have us believe, nor does it appear unreservedly "in the interests of the State University and for the advancement of the medical profession."

In all this public agitation the medical faculty at the university has been shown so little common, let alone professional, consideration, that it is a matter of surprise that the voice of protest has not sooner been raised.

It may be entirely proper and courteous to belittle one's colleagues in the daily press and to heap odium on a great institution by publicly expressing unfounded opinions, or by misstating facts, but there are a few humble practitioners about the state who haven't advanced so far in the principles of medical conduct that they can appreciate the fine civilities exhibited by certain so-called "leaders of the profession." The public insinuation of one Detroit surgeon that the Ann Arbor physicians are inexperienced theorists is so inane as to need no comment. It merits only the presentation of an edition de luxe of the Ethics of the American Medical Association to the man who made such utterances.

The advocates of the change advance the argument that the clinical advantages in the Detroit hospitals are greatly superior to those at Ann Arbor. Such an abstract statement is easy to make, but if the enthusiasm of the supporters of the proposition will permit them to pause and inform themselves that a large proportion of the patients in the available Detroit hospitals are private cases, whereas every patient admitted to the University Hospital, from the time of entrance until discharge is *used* for clinical instruction, they might be brought to admit that, in the comparison, unjuggled figures will not show the University Hospital to suffer unbecomingly.

It may not be generally known that senior students at Ann Arbor spend practically all their time at clinical work in the hospital, and have unbounded opportunity to follow up their patients, observing, diagnosing, and treating cases themselves. Again, with the University Hospital system, students can be summoned in a few minutes, day or night, to witness emergency surgery, obstetrical operations, and disease complications. Not long ago a prominent surgeon told me that during his medical course in one of the largest American cities he did not see a single accident case, not because there were no cases, but simply for the reason that he could not be quickly summoned. That Ann Arbor is a small town is hardly an argument in favor of the proposed change. Except for the acute infectious diseases, the cases in the University Hospital are drawn largely from a wide territory, and, if memory does not badly fail me, a considerable percentage are from Detroit. It has been most convincingly demonstrated by a graduate of the University of Michigan, whose name needs no mention to identify him, that it does not require a populous community to establish a clinic of considerable proportions.

Conceding, however, that it would be to the advantage of the Medical Department to conduct a certain part of the work in Detroit, the advocates of the movement should enlarge their views to meet the requirements. It would necessitate talking in millions instead of in thousands. The Board of Regents, presumably after giving the proposal thorough consideration, do not feel justified in making any change under present conditions. Therefore, if we agree that it would result in the improvement of the standards of medical education in the state, to have only one medical institution, let us consider no personal conveniences in the matter and without disparagement of the faculties, the alumni, or the students may we unite to secure a real university medical department and not any temporary makeshift. The state and interested patrons can support the best, and we don't want to make apologies for lack of advantages, clinical, theoretical, or ethical, to any medical institution in the country.

C. G. PARNALL, M. D.  
Jackson, Mich., March 10, 1907.

Ann Arbor, Mich., March 1, 1907.  
*To the Medical Profession of Michigan.*

At a recent meeting of the physicians of Wash-

tenaw County a resolution was unanimously passed requesting our representative, Hon. H. Wirt Newkirk, to ask our state legislature to amend the present law relative to the registration and return of births, so that for every and each complete return, the physician or other person so reporting shall receive the nominal fee of fifty cents. May we ask for your immediate and vigorous co-operation for the amendment of this law during the present session of our legislature. We desire also to ask you to urge this matter upon your representative at Lansing, either by letter or personal interview, or both.

Respectfully,

(Signed) I. D. LOREE,

Pres Washtenaw Co. Med. Soc.

JOHN WILLIAM KEATING,

Sec. Washtenaw Co. Med. Soc.

J. A. WESSINGER,

Mem. Mich. Aux., National Legislative  
Council.

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## News

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Dr. Alden Williams, secretary of the Kent County Medical Society, is in Berlin. Dr. F. C. Warnhuis, the treasurer, will fill the vacancy until Dr. Williams' return.

Dr. H. B. Ashton, of Traverse City, has been spending the winter in Virginia.

Dr. J. L. Boyd, formerly of Rapid City, has located in Traverse City.

Dr. Strangways, of Traverse City, has discontinued the practice of medicine and gone into the lumbering business.

On Thursday evening, March 14, a meeting of Detroit physicians was held to consider the matter of obtaining property for a medical building. A proposition, previously approved and subscribed to by numerous representative men, was advanced to raise money by subscription, purchase land, and erect a building, with suitable rooms for medical meetings, a library, and renting space on the ground floor. From the rentals obtained, both of ground floor and of the medical meeting hall, the expenses of the building could be defrayed. The scheme includes the idea that the Wayne County Medical Society shall use the hall, at a nominal charge for rent, and that ultimately the building shall pass into the hands of



the society as the stock is retired. A committee was appointed to consider the matter and report at a later date.

Dr. M. S. Gregory, who removed from Traverse City last September and spent several months in practice at Mt. Pleasant, is again located in Traverse City.

The city council of Saginaw recently enacted an ordinance requiring that no medical samples shall be distributed unless the distributor has been issued a license. The health office will refuse permits on applications which do not contain an analysis of the medicine to be distributed.

Epidemic diseases have recently prevailed in Michigan towns as follows: Smallpox in Centerville, 20 cases; scarlet fever in Holland; measles in Marshall, Munising and Allegan; scarlet fever in Alma, requiring closure of public schools.

Dr. Dayton Parker, of Detroit, has been appointed to the State Board of Correction and Charities; W. A. Dohany, of Detroit, to the Board of Pharmacy, and Dr. V. C. Vaughan, of Ann Arbor, to the Board of Health.

Dr. A. E. Weed, formerly of North Branch, has located in Columbiaville.

Several Detroit physicians, on being interviewed by newspaper representatives, have declared that the noise of street cars has a perceptibly unfavorable effect upon sick patients.

Dr. Romeo H. Earle, on service at the Wayne County House, has gone to Hot Springs to convalesce from blood-poisoning, contracted during an operation.

Dr. J. W. Cooper, of Grand Rapids, has removed to Jones, Oklahoma.

Five members of one family in River Rouge contracted smallpox and had been ill three weeks without being reported by their physician to the board of health and without any precautions for quarantine.

Dr. E. J. Barbee, of Houghton, has gone on a trip to Texas and California on account of ill-health.

Dr. E. W. Haas has been appointed to succeed Dr. C. G. Jennings on the Detroit Board of Health.

Dr. R. D. Sleight has returned to Battle Creek after a foreign journey of several weeks.

Dr. W. A. Chapman, of Ludington, about to remove to Seattle, Wash., has sold his practice and equipment to Dr. E. George Gray.

Dr. Guy M. Dunning, of Lansing, has returned from a five months' trip abroad.

Dr. D. G. Austin, of St. Johns, has sold his residence and practice and will remove to Colorado for the benefit of his wife's health.

Dr. A. H. Steinbrecher, of Detroit, has returned from a several months' trip abroad.

Dr. and Mrs. C. W. Hitchcock, of Detroit, are in England.

Dr. E. L. Shurly, of Detroit, sailed for home April 6th.

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## Deaths

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Lyman W. Bliss, M. D., of Saginaw, died suddenly from heart disease in San Antonio, Texas, Feb. 19, aged 70. Details are noted elsewhere in the Journal.

Dr. J. G. Reinberg, of McBain, died Feb. 22, 1907, aged 62 years. Cause of death, typhoid pneumonia. Member of the Tri-County and State Societies.

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## Visiting Nurses' Association of Detroit.

At the annual meeting of the Visiting Nurses' Association, held March 14th, announcement was made of the appointment of a special nurse for tuberculosis patients.

A special nurse for tuberculosis cases was appointed March 1 and as the need for more nurses arises more will be supplied. Another special nurse was appointed for post graduate clinic work and another in the schools. The school nurses' visits have resulted in great good and have the indorsement of the school board, teachers and parents. The visiting nurses made 8,871 visits during the last year exclusive of the work of the three special nurses. This is an increase of 500 visits over last year, which is only one indication of the rapid growth of the nurses' work.

Besides the James E. Scripps bequest of \$1,000, there have been generous donations of milk, eggs and other food suite dfor tuberculous patients. Tents and various equipments for preventing the spread of contagion have been among the gifts.

The officers elected are: President, Mrs. A. W. Diack; vice-president, Mrs. Lucian S. Moore; secretary, Miss Mary B. Mumford.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Functional Albuminuria in Athletes.**—COLLIER has observed for a number of years that a large proportion of the young men at Oxford who wished to take part in athletics showed pronounced albuminuria after exercise, though the morning urine was free from albumin. It was formerly his habit to dissuade these men from violent physical exertion, on the supposition that the condition indicated an insufficiency of the renal blood vessels. A number of the men consulted well-known specialists, who invariably concurred in this view, and insurance examiners usually refused such subjects. The observation that such men as disregarded his advice and went in for rowing, running, etc., were not in the least injured thereby; that treatment had no effect in the condition, and that such patients as he was able to follow up later in life ultimately showed spontaneous cessation of the albuminuria, led COLLIER to undertake systematic examinations of the college athletes, to determine the frequency of albuminuria. He found that in more than 50 per cent of the oarsmen, after the ordinary training exercise, the urine showed considerable amounts of albumin with the cold nitric acid or heat and acetic acid tests, while after severe rowing every member of the crew showed it. A smaller number of the runners was examined, but the findings were the same, with the albuminuria rather more marked than in the oarsmen. He was unable to find that any of these men suffered any definite injury from their indulgence in athletics, and the albuminuria after exercise was not found in those whom he had the chance to examine later in life. An inquiry into the after-health of 294 men who had formerly taken part in the inter-university boat race showed that their chance of long life was better than that of the average man, although it is to be assumed that the percentage of functional albuminuria was as high in them as in those examined.

COLLIER concludes that albuminuria in a young man, after severe exercise, if it be not present after sleep or meals, is not an indication of weakness or disease, and that insurance companies are wrong to reject such candidates.—*Brit. Med. Jour.*, Jan. 5, 1907.)

#### Influence of Excessive Meat Diet on Fer-

tility and Lactation.—WATSON believes that the falling birth rate in England and the increasing inability of women to nurse their children may to some extent be due to the increasing tendency to excessive meat eating. To determine the effect of such a diet on animals he experimented with rats, using one set of animals fed exclusively on meat and a control set fed on bread and milk, the other conditions being the same throughout. Of twelve females fed on bread and milk all conceived and bore young during the experiments, while only 9 out of 13 fed on meat became pregnant. The weight of the mammary tissue in the animals in each set who had born young was determined by killing the animals and carefully stripping off this tissue. It averaged about  $\frac{1}{6}$  less in the meat-fed animals. The average weight of the young of the meat-fed rats at 20 days was about  $\frac{1}{4}$  less than that of the young of those fed on bread and milk.

WATSON thinks the possibility suggested by these observations calls for further study along similar lines.—*Brit. Med. Jour.*, Jan. 26, 1907.

**Bier's Hyperemia in Sea-Sickness.**—ROESEN was led to make a trial of passive cerebral hyperemia in seasickness by his observation, while serving as ship's physician, of the effect of the hyperemia induced by hot applications and by posture. He reports results obtained upon himself and several passengers. In every case the bandage, properly applied, brought marked relief from the depression and nausea, so long as the stomach was empty, but did not prevent vomiting when food was taken. He adds that it would not do for parties to apply the bandage themselves, as it is important to get just the right degree of compression.—*Munch. med. wochensh.*, Feb. 12, 1907.

**Scurvy from Anti-diabetic Diet.**—JONES reports a case of severe scurvy, resulting from twenty-one months' adherence by a diabetic to a very rigid diet, composed almost entirely of fresh-cooked meat and eggs, with the occasional addition of fish and toast or diabetic bread, but no fresh vegetables. Cure was quickly effected by the addition to the diet of such fresh vegetables as the diabetic may take, and there was no return of glycosuria.—*Brit. Med. Jour.*, Jan. 26, 1907.



## SURGERY

Conducted by

MAX BALLIN, M. D.

**Sarcoma of the Long Bones.**—The majority of surgeons all recommend amputation in all cases of sarcoma of the long bones. COLLEY, who had a personal opinion of sixty-nine cases of sarcoma of the long bones, believed that resection of the diseased part should be employed in a much larger number of cases, particularly of the myeloid type in the radius and tibia, and the results obtained by v. Mikulicz and others, principally German surgeons, seem to justify such a change of attitude. Coley believed also, that the use of the mixed toxins of erysipelas and bacillus prodigiosus after operation will greatly widen the limits within which the operation of resection may be safely employed.

The use of the toxins is no longer in the experimental stage. If we could offer the patient reasonable certainty of life by amputating the limb, there might be some ground for hesitating to try the toxin treatment before amputation; but, in the face of our inability to save the life of the patient except in a very small minority of cases, Coley feels that we are risking little in giving the patient the benefit of a brief trial with the mixed toxins. A period of three to four weeks will almost always be sufficient to determine the probable success or failure of the treatment. If a tumor continues to increase in size during this period, then Coley would not prolong it to the full four weeks, but would amputate at once, and then as soon as practicable continue the toxins as a prophylactic against recurrence. With this important exception, Coley limits the use of the toxins to inoperable sarcoma. Coley has thirty-six cases of inoperable sarcoma, in which the toxins have been used with success during the past fourteen years. Twenty-six of these cases were well and free from recurrence from three to thirteen years; twenty-one from five to thirteen years. Of sixty cases successfully treated by other surgeons, twenty-seven were alive and well from three to twelve years, which is sufficient refutation, Coley thinks, of the statement occasionally made, that the method has been successful only in the hands of its author.—*Annals of Surgery*, March, 1907.

**Statistical Results of Operations for Cancer of the Breast.**—The result of 320 cases of cancer of the breast operated on in the University Clinic of Breslau, from 1890-1900, are given as follows: eight died from immediate effects of the operation (three from pneumonia, two from sepsis, one from pleuritis, two from collapse). Two of the eight fatal operations were secondary operations; hence, the mortality from operation is

only 2.71 per cent.

As to permanent cures, SCHEU divides his cases into four groups: first, cases in which no infection of the axillary glands could be proved; second, in which the axillary glands were found infected by microscopical examination after the operation; third, cases in which the axillary glands could be felt swollen before operation, but there was no infection of the supra and infraclavicular glands; fourth, cases where, before the operation, infected clavicular and cervical glands could be felt. From the first group 29 patients could be observed for years; of those, 13 were permanently cured; 16 had return of the cancer. Of the second group, twelve were under observation long enough to be considered as to ultimate results. Of these twelve, three were cured, nine had return of cancer. Of one hundred and sixty-four cases of the third group, thirty were cured, one hundred and thirty-four suffered or had died from return of the cancer. In the fourth group belong forty-six cases with forty-five failures, that is, death from return of the cancer. The cases considered cured, were observed at least three years after the operation. One, more than fifteen years; five more than fourteen years, etc. The lesson is obvious: early operation gives the best results (44 per cent cures in group one, 24 per cent in group two, 15 per cent in group three, 1 per cent in group four).

The best method for permanent results is the most radical, removal of breast, pectoral muscles, axillary fat and glands.—*Mitteilungen aus der Grenzgebieten der Chirurgie und Medicin. Third Supplement in Memory of J. von Mikulicz*, 1907.

**Technique of Narcosis.**—STRAUCH used for years the following method of Narcosis: On the evening before the operation, the patient receives 1 gram (16 grs.) veronal. One hour before the operation 0.015-0.025 ( $\frac{1}{4}$ - $\frac{1}{3}$  gr.) of morphine is injected hypodermically and at the same time an enema of whisky is given. For the narcosis proper, ether is administered by the drop method. Author claims that this method has several advantages. The veronal causes a good restful sleep the night before the operation, so that there is no nervous excitement of the heart. Veronal plus morphine plus alcohol reduce to a minimum the quantity of ether necessary for surgical narcosis. The patient usually rests quietly for from twelve to eighteen hours after the operation. The large dose of 15 grs. veronal was never followed by any bad symptoms.—*Zentralblatt fuer Chirurgie*, No. 9, 1907.



## GYNECOLOGY.

Conducted by

W. H. MORLEY, M. D.

**The Radical Abdominal Operation in Carcinoma of the Cervix Uteri.**—WERTHEIM describes his well known operation for removal of the pelvic glands in cancer of the uterus. His technique is in brief as follows:

1. Careful treatment of the cancer per vaginam by curettage and by burning with Paquelin cautery.

2. Opening of abdominal cavity by median longitudinal incision and division of posterior layer of broad ligament in order to expose the ureters.

3. Separation of bladder from the uterus.

4. Ligation and division of the infundibulopelvic, the broad and round ligaments.

5. Ligation and division of the uterine vessels.

6. Isolation of both ureters.

7. Separation of rectum from vagina, completing the isolation of the carcinomatous organ.

8. Removal of the diseased uterus by dividing the parametrium as closely as possible to the pelvic wall and by separating the uterus from its vaginal attachment.

9. Removal of all enlarged lymph glands along the iliac vessels upwards as far as the aortic bifurcation and downwards to the obturator foramen.

10. Treatment of the raw surfaces by covering in loosely with iodoform gauze, whose lower end extends out through opening into the vagina.

11. Suturing the anterior and posterior flaps of the visceral peritoneum over the gauze drain.

12. Closure of the abdominal wall.

The after-treatment is relatively simple. The gauze drain is removed gradually on the fifth day so that by the tenth the drain is entirely removed. Some trouble may be experienced with the bladder in these patients but such trouble usually clears up when the patient leaves her bed. Uretero-vaginal fistulae may develop a few days after the operation due to secondary necrosis of the ureter. They may heal spontaneously after cauterization with iodine or a nephrectomy must be performed—an operation Wertheim prefers to implantation of the ureters in the bladder. This complication has occurred only once in the au-

thor's last fifty cases. As the technique of this radical operation becomes more familiar, one should seldom if ever experience this complication.

The duration of the operation varies directly with the skill of the operator, his knowledge and perfection of the technique. One should not require more than one and one-half hours for the most difficult cases. The mortality at first was large (15 to 18 per cent) but at present Wertheim has succeeded in reducing it to 8 per cent. The cause of death was rarely due to infection or peritonitis; the great majority were the so-called heart deaths. (Emboli.) Prolonged anesthesia may be avoided by doing the preliminary vaginal work without anesthesia. The author has also had good success with spinal anesthesia.

Microscopical examination of the lymph glands disclosed many interesting characteristics. Serial sections were made of a large number of these glands and they were subjected to careful microscopical examination. In twenty-eight per cent of the cases the vaginal lymph glands were found to be carcinomatous. In numerous instances enlarged glands were found to be entirely free from carcinoma. Those glands removed from the regions between the external and internal iliac arteries and in the neighborhood of the obturator foramen proved to be carcinomatous to an advanced degree.

The recurrences occur in the lymph glands and after five years, sixty per cent of the patients operated on remained free from recurrence. The author makes the statement that this extensive freedom from recurrence is a positive point in favor of the abdominal route, and comes to the following conclusions in this regard:

1. That these extensive vaginal operations are more difficult than extensive abdominal ones.

2. That today there is no difference in the mortality of the two operations.

3. That, in spite of all skill and technique, the vaginal operation does not permit the removal of the parametrium as the abdominal.

4. That the vaginal operation by no means permits the removal of the glands which lie on the iliac vessels.—*Surgery, Gynecology, and Obstetrics*, Vol. IV, No. 1.

## PATHOLOGY AND BACTERIOLOGY

Conducted by

A. P. OHLMACHER, M. D.

**Malignant Endocarditis Successfully Treated by Artificial Autoinoculation.**—Under the fully-descriptive title "A Case of Infective Endocarditis Cured by the Inoculation of a Vaccine Prepared From Organisms Found in the Patient's Blood, the Inoculation Being Regulated by the Examination of the Opsonic Power of the Patient's Serum," the most noteworthy communication thus far made to the rapidly increasing literature attesting the remarkable efficacy of opsonic therapy is presented by BARR, BELL, and DOUGLAS.

The patient, a young woman of 25, was originally under the care of SIR JAMES BARR and DR. W. BLAIR BELL; later Sir A. E. Wright was called in consultation and directed the treatment by the inoculation method, the details of which, including the twice-daily taking of the opsonic index, were carried out by Wright's associate, CAPTAIN S. R. DOUGLAS. On Jan. 13, 1906, the first clinical observation was made, the young woman reporting that on Jan. 5, while staying in the country, she had contracted a slight sore throat accompanied with some vomiting; Jan. 8 she felt shivery and ill, and on the 12th a swelling appeared on the left side of the neck. The swelling, probably a periadenitis, disappeared spontaneously in three days. On Jan. 13 the temperature was 105° F., and continued so for three days. Nothing abnormal was found in the heart at this early stage. Beginning Jan. 16, anti-streptococcic serum in 10 cubic centimeter doses was injected, to be repeated daily or once in two days till the 28th, with no appreciable result. The temperature ranged from 90° to 104°. Rigors were frequent. After about a fortnight, symptoms of endocarditis of the right ventricle were detected; these gradually became more pronounced; there was dilatation of tricuspid orifice accompanied by a slight murmur, and pulsation in the veins of the neck, and in the liver, which became large and rather tender. After the rigors, which occurred frequently, there was a troublesome cough, with a little scanty mucous expectoration. The left ventricle was not enlarged, and there was no enlargement of the spleen. The urine at this time was simply febrile urine, but later it contained a cloud of albumin. On Jan. 26th a small abscess was formed in the foot and the pus showed the presence of a streptococcus in short chains. Cultures made from swabs from the throat and nose threw no light on the matter. Attempts to make cultures from the blood proved futile. On Feb. 2d the patient complained of pain in the right side. This was the commencement of a slight pleurisy, during which some effusion occurred, but which gave rise to no

serious trouble. On Feb. 12 a pure culture of streptococcus was obtained from a specimen of blood withdrawn at the commencement of a rigor. This culture was sent to Sir A. E. Wright and from it a vaccine was prepared. On Feb. 22d the first dose of vaccine was injected after the opsonic index had been examined and found to be 0.4.

After an inoculation of 10,000,000 dead streptococci, the opsonic index rose without any appreciable negative phase in eight hours to 1.4 and remained above the normal for the three following days. During this period the mean daily temperature shows a marked fall. On the opsonic index reaching the normal line another inoculation was given, the dose being 12,500,000. This inoculation was followed by a very slight negative phase, after which, however, the index rose rapidly to 2.1, to fall with equal rapidity to 1.3 on the third day after inoculation. In order to keep the index above the normal as long as possible, another inoculation was given, the same dose as the last; and as but a slight negative phase had been produced, this dose was repeated the next day. On March 3d (the day following the inoculations) the index was normal, but rose rapidly to 2.4, keeping above the normal line for the next six days. The mean daily temperature, which up to March 2 had steadily fallen, rose, reaching the level occupied before inoculation was commenced.

On March 6th it was, however, noticed that a thrombus was commencing to form in the left iliac and femoral veins. To prevent the spread of the thrombus and to secure, if possible, the shrinking of the clot, large doses—from 30 to 60 grains—of citric acid were given every four hours. This treatment was so successful, apparently, that there was at no time any marked degree of edema in the limb affected. Coincidentally the temperature again dropped. A further inoculation of 12,500,000 was given on March 8, as the opsonic index had dropped to 0.7. On March 11 the index had risen to 1.39, when another similar dose was given. This caused a slight negative phase, but the power quickly rose to 2.0 on March 14, on which day a further inoculation of 6,000,000 was given. This caused a very distinct fall in the opsonic index and unfortunately a dose of 6,000,000 was again given on the 16th, which caused the index to drop below the normal line and the temperature, which had remained normal for 24 hours, to rise above 105° for a short period. This return of fever was, however, only temporary, for with the rise of the opsonic index the temperature again became normal and there was no further rise.—*Lancet*, 2-23-'07,



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

C. W. EDMUNDS, M. D.

**Treatment of Uremia.**—On the theory that uremia is produced by a toxin, LEFEVRE advises venesection as the most rapid method of aiding elimination and at the same time of lowering the arterial tension, which is frequently very high. Other measures having the same object in view are the use of means to promote free diaphoresis. For this, hot packs may be used, or hot vapor baths, or, perhaps best of all, electric light baths. Pilocarpine used carefully may cause a diminution of the symptoms. To aid elimination by the intestine, colonic irrigation may be used. On account of the vomiting which is frequently present, the saline cathartics may not be retained, but the compound powder of jalap in dosage of  $\frac{1}{4}$  to 1 drachm is usually well taken. Elaterium 1-10 to 1-6 grain or elaterin in the same dosage may be given every three or four hours until free catharsis is produced. Many believe the mercurials to be the most beneficial of the cathartics, but care should be taken to see that free catharsis is produced, as otherwise in chronic nephritis salivation from the absorbed mercury is very likely to follow.

To secure free diuresis is sometimes difficult, as in uremia there often seems to be a direct inhibition of the kidney. The members of the caffein series are best tried and they often act better if given in connection with some of the members of the digitalis group.

The uremic convulsions are best controlled by the use of chloroform and chloral. If it is desirable to lower the arterial pressure rapidly, recourse may be had to venesection, or to free catharsis by croton oil. The action of the nitrite series is quite transient.—*British Med. Jour.*, No. 2395, p. 1449.

**Trypsin Treatment of Cancer.**—GRAVES has used the remedy in four cases of inoperable carcinoma of the breast and gives his conclusions of the value of the method of treatment as follows:

First, a discreet cancerous node, systematically attacked by injections of trypsin, shrinks, becomes hard and fibrous, and disappears.

Second, neighboring nodes are little, if at all, affected, and are probably influenced only when trypsin comes into actual contact with the growing cells.

Third, the treatment of a given node, causing it to shrink and disappear, does not prevent the appearance later of another node in immediate proximity to it.

Fourth, there is no evidence that trypsin affects cancer cells by circulating in the blood, or

that it affects them in any way other than by actual contact.

Fifth, the internal administration of the ferment in cachectic patients apparently did some good, but probably only through its action on digestion.

Sixth, clinically and microscopically the evidence obtained is sufficient to warrant a continuation of the treatment in operable cases, especially as no serious results are likely to follow.

GRAVES used the injectio trypsinii of Fairchild, beginning with ten minims of the undiluted solution, which was increased after two or three administrations to 40 minims three times a week. The dosage and frequency of treatment must be determined by the severity of the local and general reaction.—*Boston Med. and Surg. Jour.*, Vol. CLVI., p. 129.

**Treatment of Some Forms of Acute Cardiac Dilatation.**—BEVERLY ROBINSON considers especially the treatment of those forms of acute dilatation which occur after the acute infections. In the dilatation which occurs after rheumatism he recommends the salicylates and sodium bicarbonate, together with blood-letting and the application of the ice bag. When dilatation occurs in pneumonia, he prefers a local blood-letting by means of leeches or wet cups. He thinks this method is more effective and relieves symptoms of distress and oppression sooner than venesection. With pulmonary obstructions and a dilated right heart he recommends the vaso-dilators, as nitroglycerin, and says digitalis is to be avoided. Digitalis may, however, be used after venesection, or where the heart as a whole is affected by the toxemia.

In acute dilatations following diphtheria, besides heat to precordium and extremities, strophanthus may be given with ammonia and brandy. For a complete cure, prolonged rest and suitable tonics, such as strychnine, are necessary; country air, good food, with bodily and mental rest, being very important. Influenza is frequently followed by cardiac dilatation, and this is best treated by a change of air and absolute rest. An ocean voyage will often prove very beneficial and to this may be added the advantages of the Nauheim treatment abroad. If such a line of treatment cannot be carried out, ROBINSON advises the artificial Nauheim baths, together with resistant movements carefully carried out. In some cases the prolonged use of small doses of digitalis is curative.—*Am. Journ. Med. Sc.*, Vol. CXXXIII., p. 234.



## PEDIATRICS

Conducted by

R. S. ROWLAND, M. D.

**The Practical Application of the Newer Knowledge of the Chemistry of Milk.**—SOUTH-WORTH believes that recent work upon the chemistry of milk bids fair to revolutionize to a marked degree our conception of the problem of artificial feeding. These data may for the present purpose be summed up by saying that the casein in suspension in cow's milk which, as calcium casein, normally holds in combination a definite amount of calcium, is really transformed by the rennet ferment in a weakly acid medium into calcium paracasein or junket clot. By the further addition of acid it is changed into acid paracasein curd. No such clotting or curdling by rennet will take place if the milk is made alkaline, but subsequent neutralization of an alkalinized milk by a slight excess of acid will restore its susceptibility to rennet action.

The addition of alkalis to milk then, not only forms new chemical compounds with casein, but produces distinct effects upon the process of digestion. A small amount of the alkali simply delays curdling, pending the neutralization of the alkali by the acids present in or secreted by the stomach. This delay alone tends to prevent the curdling of the milk in large, solid masses, and favors the formation of smaller and more flocculent curds. On the other hand, if the alkalization is sufficient not to be overcome readily, part of the still uncurded milk will probably escape through the pylorus to be digested in the intestine, and so relieve the stomach of part of its work. If the gastric digestion is weak and faulty, this is often an advantage, and it may even be possible to shift the entire burden of digestion to the intestine.

It is evident that agents capable of such radical influences upon the processes of digestion should not be used without careful discrimination. They may be of extreme value in the feeding of infants with weakened gastric digestion. We may employ them to change the character of the curds, or to divide the labor between the stomach and intestine, so as to avoid overtaxing the former organ; but we must keep in mind that the infant's stomach must be developed during infancy, and that it gains strength only when a carefully graded increase of work is demanded of it. Grading the increase of work is indeed the true explanation of the results obtained by the time-honored use of lime-water as a routine measure in modifying milk. By the addition of one ounce of lime-water to every 20 ounces of milk mixture irrespective of the quantity of milk

entering into its composition, the casein in the earlier and weaker mixtures is more profoundly affected by the lime-water than in the later ones, in which the milk is progressively increased while the quantity of lime-water does not vary. The inhibiting action of the alkali upon coagulation is thus gradually withdrawn as the normal stomach in its development becomes equal to greater tasks.

The various alkalies in common use do not necessarily act in precisely the same way. Lime-water is distinctly alkaline and but weakly antacid. Sodium bicarbonate is very weakly alkaline, but distinctly antacid. The calcium of lime-water enters up to a certain limit into further direct combination with the casein, and this is probably true of the sodium, magnesium, and potassium of the other alkaline antacids. It is extremely probable that these new combinations vary in their digestibility, and more especially in their solubility. In disturbed conditions of the stomach, accompanied by the formation of abnormal acids, alkaline additions to the milk neutralize these and prevent sudden and disastrous curdling of the milk in large masses, such as may be formed in the presence of rennet by abundant acid. One of the sources of an undue amount of acid may be the lactic acid or the acid salts present in milk which has just begun to sour. In this stage it is more dangerous for infants than a fully soured or clabbered milk, for in the latter stage the lactic acid has removed the calcium from its union with the casein and made actate of casein, and in this form the rennet cannot change the soft acid curd into those which are tough and leathery. This is the principle which underlies the use of buttermilk and acidified milk in infant feeding.

A similar decalcification of the casein by the citric acid radical of citrate of soda, the consequent prevention of tough rennet curds and the casein digestibility of the subsequent combination of the casein with the hydrochloric acid of the gastric secretion explains the present popularity of citrate of soda, which it is claimed enables larger proportions of milk to be given without digestive disturbance. Thus, with some definite understanding of the action of both alkalies and acids upon milk and their effects upon the digestive process, the way is cleared for their more intelligent use both as a routine measure and in the treatment of infants with enfeebled or disturbed digestion.—*Editorial Archives of Pediatrics*, Feb., 1907, pg. 118.

## GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

**Ectopia Testis Transversa.**—The author reports this very interesting condition, of which he found only two similar instances in the literature, met with in a patient whom he operated in 1904 at the Cook County Hospital.

The findings were as follows: Both testicles found to occupy the left scrotal pouch, with a common tunica vaginalis; they were of equal size, small, but normal in consistency. The epididymi were fused from the middle third downward to the globus minor. They evidently contained a large amount of fibrous tissue and fat, which formed a mass closely resembling a uterus. From the upper part of this mass were suspended the testicles. Between the upper part of each epididymis and the testicle was a band of connective tissue and serosa, which resembled the broad ligament of the female. The rather free upper part of the epididymis resembled a Fallopian tube. The vasa deferentia were distinct and of large size until the upper part of the inguinal canal was reached; here they were closely bound together, forming one large cord, which was fully  $1\frac{1}{4}$  inches in diameter at the point where it passed into the internal ring. As there was nothing to justify the removal of the testicles, they were replaced in the scrotal pouch and the hernia operation completed without transplanting the cord, which was so large as to make closure of the hernial opening difficult. The hemorrhoids were removed by the clamp and cautery method. Recovery from both operations was complete and satisfactory.

The cause of this abnormal condition is to be found in anomalies of growth which occur in the early foetal life in the genital area. These changes undoubtedly antedate the beginning of the descent of the testicles. Crossed ectopia or transposition of the right testicle, resulted from the left possessing greater energy, thus dragging the right testicle through the left inguinal canal into the left scrotal pouch. The presence of a single tunica vaginalis is easily explained.—A. E. HALSTEAD, *Surgery, Gynecology, and Obstetrics*, Feb., '07.

**Extirpation of a Hypernephroma, Weighing Four and a Quarter Pounds, from an Infant Twenty Months of Age; Recovery.**—This case is worthy of notice both because of the tremendous size of the tumor and because of the recovery in so young a patient. The transperitoneal method of exposing the growth was employed, the right rectus muscle being split from the costal arch nearly to the pelvis. The rectus opening gave a good view of the mass, which with huge veins coursing over its surface presented a formidable appearance. Perpendicularly on its anterior face lay the ascending colon, lifted along with the posterior layer of peritoneum, behind which the tumor had developed. The other intestines were crowded over to the left. In the peritoneum, constituting the anterior covering of

the mass, an opening was made to the right of the colon and the peritoneum with the ascending colon was stripped from the tumor. Bleeding was free during this step, and required pressure with hot gauze to control. Working behind to the right, the kidney was freed, and then by pressure on the outside of the abdomen, the tumor, plus the kidney attached by its upper pole, was delivered through the incision. As this emerged it revolved to the right, exposing the pedicle consisting of renal vessels, etc. An infected gland was disentangled from their midst, and then a cat-gut ligature applied, and the mass cut away. Recovery was in all respects uneventful.—WILLIAM S. CHEESMAN, *Annals of Surgery*, Jan., '07.

**Intraperitoneal Rupture of the Urinary Bladder.** With Report of a case Operated Two Hundred and Fifty-four Hours After Accident: Recovery. On Sept. 28, 1904, a man was brought to Cook County Hospital, Chicago, with intraperitoneal rupture of the urinary bladder. Eleven days previous to admission he had received an abdominal injury, since which he had suffered from anuria and a progressive abdominal distension. He was operated two hundred and fifty-four hours after the accident, and was discharged from the hospital on the tenth day well.

The time element is the important and interesting feature in this case. It is unique in medical literature. BLUMER (*British Med. Journal*, 1903, 1, 789) reported a case operated the sixth day after injury, with recovery, operator Dr. George F. Thompson. Incision in median line four inches long. Abdominal cavity opened. About 2,000 cc. bloody urine found free in peritoneal cavity. On superior surface of the bladder in median line was an opening with ragged edges, which barely admitted the thumb. Opening in bladder sutured by Czerny-Lembert method, using silk. Abdominal cavity flushed with normal salt solution. Peritoneum and abdominal wall closed by separate layer method. Bladder was drained for five days by catheter through urethra. The patient made an uneventful recovery.

It is noteworthy in this case that the patient performed his work as a laborer an entire day after the accident, and was not compelled to take to bed until the second day was well advanced. The symptoms of shock were entirely absent, it being probable that the patient had to be taken home after the injury more on account of intoxication than on account of the injury itself.

Yet, it is well known that serious injury to persons under the influence of alcohol often lacks just this element of shock, which is so important in the diagnosis of internal injuries. So, too, is rupture of the urinary bladder a relatively common occurrence in intoxicated persons, owing to the distension of the organ and to the dangers of trauma in this condition.—EDWARD QUICK, *Annals of Surgery*, Jan., '07.



## RADIOGRAPHY AND ACTINOTHERAPY

Conducted by

H. R. VARNEY, M. D.

### The Present Status of the Roentgen Ray.—

SYDNEY LANG, in a very exhaustive paper, discusses the present status of the Roentgen Ray; its great aid in diagnosis of medical and surgical conditions, and its indications and limitations in therapy. He states that a new era for the ray has dawned; instead of a mysterious unknown it has become a rational aid in therapy. Experience and study are necessary to achieve a perfect technic in its application. A skiagraph is worthless and even dangerous unless the operator is able to correctly interpret it. He therefore looks upon the report of a skilled radiographer with as much importance as that of a bacteriologist or pathologist. The radiographer can best interpret the radiograph, because he best knows the conditions surrounding the production of the radiograph, such as the position of the patient, the light, the method of development, etc.

He considers the greatest drawback in the therapeutic application of the ray, to be the lack of a universal standard of dosage. While we have several fairly reliable methods of measurement, the introduction of X-ray filters, such as aluminum and wet sole-leather, will screen out the soft rays which so readily burn the skin, and allow the stronger rays to penetrate the deeper structures.

The physiological action of the ray he considers analogous to sunlight; small doses, stimulating, causing pigmentation and erythema; while larger doses overstimulate and produce atrophy and degeneration.

The most important action is that it causes a destruction of the diseased cell, long before the healthy cells are affected; therefore he considers that the x-ray may be applied therapeutically, as rationally as for instance, the iodide of potassium, because both must be given in small and increasing doses. He sums up as follows: It is neither a cure-all, nor a specific, yet it is deserving of a conspicuous place among our therapeutic agents.

It is to be used only as an adjunct to other means of treatment, or as a last resort after other means have failed.

It should be used first hand in three conditions, viz: leukemia, lupus-vulgaris (when too extensive for excision); and skin-cancer. In chronic eczema, acne, psoriasis, psychosis, keloid,

and lymphatic enlargement, he considers it a last resort.

After an extensive tabulation of the various diagnostic applications of the ray, in medicine and surgery, he concludes with the summary of the importance of protective measures for both the patient and the operator. During treatment, he advocates suitable protection for the entire body of the patient. Burning of the hands of the operator should now never occur, for it is no longer necessary to expose the hand in testing the tube.—*The Lancet-Clinic*, Jan., 1907.

**Radiotherapy and Radiodermatitis.**—LEOPOLD FREUND, one of the oldest and most experienced radiologists, was asked the two following questions:

1st. Are the dangers of radiotherapy such that harm caused by it overbalances the good?

2nd. What positive, favorable results can we expect as a result of our experience?

The first question he answers emphatically in the negative; with a rational dose of the ray, accurately measured, severe burns now rarely occur, only in cases of unusually susceptible skin, does severe reaction take place.

The second question is answered by reference to the excellent results obtained in the treatment of mycosis fungoids, rodent ulcer, Paget's disease, and epithelioma. He refers also to the peculiar, useful property of the ray which causes epilation; and its advantages in the treatment of ring-worm and favus.

He considers that lupus can be permanently cured by the ray and that it is especially useful in lupus involving mucous membrane when the Finsen cannot be employed.

He also calls attention to the results obtained in leukemia, neuralgia, Addison's disease, and Grave's disease, rhinoscleroma, and trachoma.—*Wien. Med. Presse*, 1906-9.

**The Use of the X-Rays in Unresolved Pneumonia.**—ENDSOLL in a recent discussion of the accelerating effect of the x-rays on metabolism in leucorrhœa has been led to apply the ray in unresolved pneumonia, and concludes that the x-rays play an important part in causing improvement and recommends further trial.—*American Journal of Medical Science*, February, 1907.



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## Original Articles

### AMERICAN GYNECOLOGY

THE ORATION IN GYNECOLOGY AT THE JACKSON MEETING OF THE MICHIGAN STATE  
MEDICAL SOCIETY, 1907

EDWARD T. ABRAMS, M. D.,  
Dollar Bay.

*Mr. President, and Members of the Michigan State Medical Society:*

It is with no little timidity that I shall endeavor to discharge the honor you so kindly bestowed upon me at your last annual meeting. I can but feel that your partiality on that occasion overshadowed your good judgment; but I assure you that whatever my shortcomings may be in attempting to travel in the footsteps of the men who have hitherto occupied this position on our program, they will be those of the head and not of the heart.

Standing at the foot-hills of the twentieth century, with its limitless possibilities spreading out before us, let us for a moment look back upon the progress and achievements of the past; and as our eye stretches down the line, we see American Gynecology standing out prominently and comparing favorably with scientific advancement along any other line in any other land.

The tendency of Americans to laud everything foreign and view with common complacency all things American, is nowhere more apparent than in the enthusiastically received opinions of foreign writers and operators, to the well-

nigh total neglect, or, at least, lukewarm acceptance of the labors and results of our own countrymen. This is greatly to be deplored. While in years we are not so old, yet in our contributions to the world's knowledge we are rich in experience and results.

America is the home of modern gynecology, and still today has a goodly number of the most enthusiastic workers who are blazing the way along the pioneer front of this specialty.

American gynecology had its conception in the rural habitations of Virginia as early as 1791, when Dr. Boynham had the boldness to open the abdomen and remove an extra-uterine fetus.

In 1806, Dr. Clark records the fact that he introduced his hand into the bowel and removed an extra-uterine fetus by putting his fingers into its mouth and applying traction.

But the birth of American gynecology very properly dates from 1809, when Ephraim McDowell, of Kentucky, successfully removed an ovarian tumor, weighing twenty-two pounds. When we think of all the conditions surrounding, and under which the operation was performed, we can surely feel a just pride for the boldness, courage and dex-

terity of the great operator. His patient, Mary Crawford, traveled many miles on horseback to his home. It was a task of no ordinary undertaking, for in his own mind he knew that he was about to undertake an operative procedure, the practical results of which were absolutely and entirely unknown to the medical world. Yet within his own heart burned that fire of approbation that has come to all great men in the epoch-making period of their lives. It came to McDowell. And though without trained assistants, and though without trained nurses, and though without modern antiseptics or appliances, knowing that outside the bolted and barred door of that rude hut stood an angry and sullen group of men, with that universal leveler of all rights and all wrongs to them in that lonely wilderness,—the rope—declaring that should Mary Crawford died, Dr. McDowell should pay the price of his butchery with his own life, nevertheless, this man of genius, with the foresight of inspiration, planned and deliberately opened the first abdomen for the removal of an ovarian tumor.

The world knows the rest. How Mary Crawford, tied to the rude operating table, without the aid of an anesthetic, withstood the inconceivable agony of an abdominal section; how McDowell, with a boldness and a precision akin to inspiration, removed the tumor, ligating its pedicle with tape, and came near anticipating the technic of today; but his scissors stopped short of cutting the tape and dropping it back into the abdominal cavity. In later years, had McDowell's technic been more fully studied, the clamp devised by the ingenuity of one "across the water" would never have been heard of, and this technic of ovariectomy perfected fifty years before it was. His patient recovered within the prescribed time of today and lived for many years after, a monument to the boldness, courage and genius of Mc-

Dowell. Great operator, gentleman, great benefactor to his race, great American, we hail him as the father of abdominal surgery.

A case that stands on record as one of the most remarkable ever performed was that of Dr. John King, of South Carolina, who cut through the vagina and removed through the incision a living child that had been carried to full term in the abdominal cavity, outside of the uterus. This was in 1816.

Would you know the isolation, the loneliness, the solitude, the lack of intercommunication of those pioneers of a century ago? Then realize for a moment that Nathan Smith, of Yale, performed his first ovariectomy in 1821, being entirely unaware of McDowell's great work of a dozen years before.

Hugh Hodge, of Philadelphia, took the view that enlargement, dislocation, congestion, hypersecretion and tenderness of the uterus should not be considered inflammation, but by supporting the uterus, all those conditions would gradually be relieved and finally disappear. And so in 1830, he gave to us and the world his pessary, based on far more correct principles than were those of any other former ones, and in its practical application a decided improvement over any or all of them.

While up to this time all work had been done largely in private practice, we can readily see that if advancement were to be made, if progress were to be achieved, work must of necessity be done on a larger scale and deductions worked up from a much larger basis. This could be done only by the establishment of a free clinic, and this honor belongs to Dr. G. S. Bedford, of New York, and it was connected with the University Medical College, in 1841.

The year 1844-45 will ever be remembered as one of the epoch years in American gynecology. Washington Atlee, working in the Lancaster County Hospi-

tal, Penn., performed two successful ovariectomies and thus established beyond controversy the legitimacy of the operation at a time when it was denounced by the profession.

It was during the same years that Marion Sims devised the wire suture and discovered a successful method of treating vesico-vaginal fistula. The cause of a sudden death in childbed baffled the entire profession up to 1852, when James A. Meigs, of Philadelphia, found its cause to be cardiac thrombosis.

The first hysterectomy for fibroid tumor was performed in Lowell, Mass., by Dr. Gilman Kimball, with a successful result. He must be credited not only with the performance of the operation, but also with the conception of the procedure.

In considering Atlee's work, we should not fail to take into consideration his method of operating on uterine fibroids, which was one of great boldness, and accompanied with unprecedented success. His method of diagnosing obscure cases of abdominal dropsy by tapping should not be forgotten, for he was the first to point out that the removal of fluid was of great value in making a differential diagnosis of broad ligament cysts and fibrocystic tumors of the uterus from ovarian tumors.

Nor should that great and grand man, Edmund Peaslee, who was for a generation the inspiration and ideal of a host of young men, be forgotten, for it was he who first, in 1854, used the drainage tube in cases of ovariectomy, followed by septicemia, through which the sac was freely washed out.

The year 1855 must ever be the memorial year in American gynecology. In South Carolina, on the 25th of January, 1813, there opened its eyes for the first time a child that in the course of years was destined to exert a great and lasting influence upon medicine and surgery, not only in his native land, but through

the entire world, and for all time,—Marion Sims. He began the practice of his profession in Montgomery, Ala. He soon became widely known for his successful operations for clubfoot. In 1845, after a long series of experiments, he made known his hypothesis on the cause and effective treatment of *trismus nascentium*. It was during the same year that he began the systematic study and experimentation in the treatment of vesico-vaginal fistula, during which period he invented the duckbill speculum. The coming of this speculum can not be overestimated. It not only placed all gynecological work upon a different basis, but made the development of all plastic work possible. And while we are among those who deprecate and deplore the naming of instruments and operations after men's names, yet in our heart we are glad that whether it be in New York, London, Paris, Berlin or Vienna, this speculum is known after the name of the American, Sims. In 1843 he removed to New York.

Whatever one's talents may be, if he would strike out from the old beaten paths of the *then* accepted ideas, if he would make any impression upon the adamant age in which he lives, if he would attempt to tear down the false but highly honored structures reared by former ages, and unquestionably accepted by the authorities, if he would throw in deep through the accumulated crust of ages the pick-ax of investigation, and with the patient laborer's spade remove false ideas, based upon erroneous conceptions, would he do all this and expect to receive a respectful hearing even from the few, he must needs address himself to a large audience, if perchance the few may be among them. Sims fully realized this, hence his removal from the scenes of his early life and labors to that larger field of life and labor, New York.

After repeated efforts, Sims succeeded in so far arousing the medical profes-



sion, through the influence of Dr. Valentine Mott, the great surgeon, and Dr. Francis, a prominent professor of internal medicine, that a meeting was called in May, 1854. The object of the meeting was to introduce Sims, who was to demonstrate a new method of curing vesico-vaginal fistula. Perhaps the success of the effort was due more largely to the young president of the New York County Society, whom some of us have had the pleasure to meet and know in his declining years as Fordyce Barker. The idea of the establishment of a hospital for the treatment of diseases of women appears to have been pretty thoroughly gone over in advance of the meeting. An idea, however, may be gained of the conception of what constituted the sum total of the proper equipment of an up-to-date gynecologist from the remarks of one Dr. Reese, who was present at the meeting. Said he, "The field is too small for a special hospital. Anyone can apply nitrate of silver to an old ulceration through an old cylindrical speculum; and all that is needed to cure leucorrhea is an astringent injection. There is no difficulty in introducing Physic's globe-pessary for prolapsus." And so, to his mind, as to many another since his day, diseases of women were something of small concern and might very properly be relegated to the mesmerists of his day, as they might to the so-called Christian Scientists of our own time. The meeting, however, was a great success in point of enthusiasm, and the Woman's Hospital came into existence. We must not lose sight of the fact, however, that the prime object in establishing the hospital was that Sims might have a place to demonstrate his work upon vesico-vaginal fistula, for from what we have been able to learn, there was more need of the hospital for the treatment of vesico-vaginal fistula than for the special treatment of all other diseases of women.

Thanks then to the surgical ability and technic of Sims, which made it absolutely necessary that the Woman's Hospital should be called into being. He has been styled by many the founder of our American gynecology, but he was more than that; he laid down broad principles and brought to his work that nimbleness and dexterity which won for him an enthusiastic reception, which resulted in bringing to him a galaxy of young men that were destined to work out, elaborate, and discover principles of surgical technic, and unravel mysteries of pathology that were to astonish the medical world, and bring lasting joy and happiness to suffering humanity.

It was but a year after the establishment of the Woman's Hospital that James White, of Buffalo, demonstrated a case of successful reduction of an inverted uterus of eight days' duration. He maintained that chronic inversion of the uterus is generally reducible. He was the first operator in America who had successfully reduced a *chronic* inverted uterus.

Vaginismus was an affection known and treated with very scant success until Sims, in 1861, removed the remains of the hymen and a section of the tissue at the perineal extremity of the ostium vaginae.

John Byrne and Fordyce Barker called the attention of the profession in papers written in 1862, to pelvic hematocele. The real importance of their papers cannot be easily overestimated, for up to the time their papers were published but one case had been recorded.

It was our own beloved Parvin who, in 1867, operated upon a case of uretero-vaginal fistula, by turning the displaced distal extremity of the ureter into the bladder, and then closing the vaginal opening. The procedure had been entirely worked out by himself, and was a decided success. It was in the same year that Newman, of New York, re-

ported such important results, especially in extra-uterine pregnancy, with electrolytic treatment.

The name of Thomas Addis Emmet will ever shine with a brightness that will become more and more resplendent with the passing of years. Any historic reference to our American gynecology, however brief or superficial, without making mention of him and his work, would be like the play of Hamlet with Hamlet left out.

Sims was a Southerner, and at the outbreak of our civil war expressed sympathy for his countrymen in the South. This brought down a cloud of opposition. Sims hurriedly resigned. Dr. Emmet was the only man in this country who had either the knowledge or interest in gynecology, as he was the only one that had the capacity of carrying on the work of the Woman's Hospital. For ten years after Sims' departure, Emmet was the only attending surgeon at the Woman's Hospital, as he was the only exclusive specialist in this country; and it was the only special hospital in the world for diseases of women. It was during those years that men flocked to his clinics from all parts of the world, to obtain something of his knowledge of this hitherto unknown specialty.

It was Emmet who gave us the plastic operations for the cure of lacerated cervix, for rectocele, for cystocele, for recto-vaginal fistula, for laceration and prolapse of the urethra. It was he who first performed those plastic operations of marvelous mechanical ingenuity and patience, of restoring the whole vagina, together with the base of the bladder, and the urethra after they had sloughed away, and giving his patient retentive power.

He invented well nigh all the instruments used in plastic work. In 1900, he resigned, after forty-six years of continuous service, and today he sits in the

gathering twilight of a long life spent in the interest of humanity, awaiting the approach of the "silent boatman," to be born away across the bosom of that still, calm ocean, we call death, to realms of eternal youth and happiness.

The year 1870 was one of more than ordinary interest to the gynecological world. It was then that Dr. E. Noeggerath demonstrated the incurability of latent gonorrhea and its widespread existence. It was he who first pointed out to the profession the frequency of pelvic inflammation among women from sexual intercourse, if the male had ever contracted gonorrhea. He also performed reduction of an inverted uterus by digital compression of both horns. He was also one of the three gynecologists of this country who called the attention of the profession to the importance of hematocele.

It was Dr. Lente, of New York, who devised the silver probe with the platinum cusp in order to apply fusible substances to the uterine cavity. The method in its day was a decided improvement over all others, but happily the day of caustics in gynecology has forever gone.

Dr. Jackson will ever be remembered as the founder of the Woman's Hospital, of Chicago. It was in the same year, 1871, that there were thirteen medical colleges that had full professors of gynecology.

The name of Robert Batty will always be associated with the extirpation of the ovaries for the relief of dysmenorrhea, due to imperfect ovulation; the object being to bring about at once the change of life, and in this way cure the disease by eliminating a function. As we sit and calmly view his work in the light of modern gynecology, after a lapse of more than forty years, we must render a verdict against it, as being based upon erroneous principles, and resulting in disastrous culminations.

It is now more than forty years ago since Dr. John Ball, of Brooklyn, New York, demonstrated the successful treatment of constrictions and other irregularities of the cervical canal by quick and rapid dilation of the same by expanding instruments of steel. He used a three-bladed self-retaining pessary in the after treatment. In this we shall easily see how nearly he anticipated our own Carstens in the use of the stem pessary.

The extensive use of *viburnum prunifolium* in the treatment of uterine disease, characterized by loss of blood, was due in a great measure to Dr. Edward Jenks, of Detroit. He was also one of the main promoters in the organization of the American Gynecological Society, an organization that has done so much for the promotion and development of this specialty.

The first gynecological society in America was organized in Boston, in 1869.

George Engelmann, of Boston, was the first to call attention to a collection of facts concerning hystero-neurosis, which showed that neurosis of the brain, pharynx, larynx, eye, stomach, intestines, bronchi and joints of a severe and misleading character, are very frequently produced by non-development of the uterus, or ovaries, or both. His contributions along this line are well worth one's time and study today, though they first came before the profession in 1877.

Marcy first used the continuous animal suture, and gave to us the tendon suture. Then an array of illustrious names that will be forever associated with the history and development of gynecology, Van de Walker, Baker, Warren, Fenger, Mann, Brown, Munde, Thomas, Coe, Goodell, Ashby, Ethridge, Pryor and Garrigues.

Herrick, of Michigan, performed the first operation for the cure of retroversion.

Sutton, of Pittsburg, performed the first successful laparotomy for pelvic abscess in this country, while Dr. Charles K. Bridden was the first to perform laparotomy after the rupture of the fetal sac in tubal pregnancy. During the last ten years, while the world has been constantly advancing theories and working out ideas, the American gynecologist has been alert and ever forcing to the front. There is scarcely a single operation that was originally devised in Europe that has not been improved or simplified at the hands of the American gynecologists. And when the time shall come to rear the tall marble shaft, which shall commemorate to the world for all time, the relief brought to womanhood by human thought and human ingenuity, bright upon that towering column, shining in the sunlight of a grateful motherhood and sisterhood, will be seen two words standing out in letters of living gold, "American Gynecology."

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**Poisonous Postage Stamps.**—The *Lancet* says that the public should be warned against the very common and dirty practice of licking postage stamps and it cannot be denied that such an objectionable habit may have dangerous consequences. "Hitherto, however, we had not been able to obtain direct satisfactory evidence of the presence of chemical poisons in the postage stamp or in its coloring matter, the cases of poisoning which are on record having been traced to bac-

terial rather than to chemical entities. This week, however, on the occasion of sending to the churches advance proofs of our Special Hospital Sunday Supplement in parcels requiring a three-penny postage stamp, we were struck with the brilliancy of the yellow coloring used in this stamp and we were somewhat startled to find on analysis that this coloring was due to a poisonous salt, chromate of lead (chrome yellow)."



## THE ETIOLOGY AND PROPHYLAXIS OF PUERPERAL SEPSIS\*

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J. B. WHINERY, M. D.Grand Rapids.

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In bringing before you this short paper on the cause and prevention of puerperal sepsis, I can only repeat well established facts, with the hope that a review of them may stimulate to a more thorough observance of the rules of asepsis and antisepsis. It is lamentable that after twenty years or more of *accurate* knowledge of the bacteriology of puerperal sepsis, infection occurs in far too many labor cases. About sixty years have passed since Semmelweis first proved that puerperal sepsis was caused by the introduction into the vaginal tract of septic material on the hands of the person making the examination. He had his students and assistants disinfect their hands in chlorine water, and the great reduction in the mortality of lying-in cases demonstrated the effectiveness of the method. Even earlier than this, Oliver Wendell Holmes published a paper on "The Contagiousness of Puerperal Fever." The efforts of both of these pioneers in this field were ridiculed and made light of by the men of their time.

It was not until the bacteriological discoveries of Pasteur and the application of antiseptic measures in surgery by Lister, that any serious attention was directed toward the prevention of sepsis in puerperal cases. In well conducted lying-in hospitals the mortality has been reduced to a small fraction of one per cent. These good results have been

brought about by the strict observance of asepsis and antisepsis. Is it too much to hope that results approximating these will soon be obtained in private work?

A conservative estimate places the number of lives lost in the United States each year from puerperal sepsis at six thousand. When we take into consideration the fact that the large majority of infected cases recover, we can easily see that the total number of cases, ranging from the mild forms to the severest types, is very large. Even supposing that the infection does not result in death, the prolonged puerperium, varying from weeks to months, and the complications which are likely to occur, make this subject one of grave importance.

With us the general practitioner and the midwife do most of the confinement work. The number of labors attended by midwives differs in different parts of the country. It is quite certain that they attend more women in foreign-born families than in those native to this country. In Grand Rapids about ninety per cent of the number of births reported are attended by physicians.

The training of a great many midwives is of the crudest kind. They are as a rule very ignorant of asepsis and antisepsis and are an actual menace to the woman in labor. Their store of knowledge consists largely of traditions and conceits. Admitting that there is a field for the midwife, there should be a state law regulating this class of workers and a certain standard of efficiency.

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\*Read before the Section on Gynecology and Obstetrics, at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

The etiology of puerperal sepsis is in the main that of wound infection, whenever it occurs, and bacteria responsible for the trouble are in the great majority of cases introduced into the vagina from without. The bacteria most frequently found are the streptococcus, the staphylococcus, the bacillus coli communis, the gonococcus, the gas bacillus, and the typhoid bacillus; and of these the streptococcus, either alone or in combination with one or more other pathogenic germs, is the most usual cause. As I have stated, in a great majority of cases the infection occurs from without, but I believe that the so-called auto-infection is possible. This is a much mooted question, and there is a great difference of opinion.

I have recently had under my care a patient who called me at the end of pregnancy to attend her. The usual antiseptic precautions were taken, the labor was normal, and no internal examinations were made. There was present a vaginal discharge with a foul odor. Within twenty hours after the birth of the child, the patient had a chill and a moderately severe course of puerperal sepsis followed. I learned later that she had had this discharge throughout most of her pregnancy and had taken treatments for the relief of it. I am convinced that this was a case of self infection, and that the same bacteria which caused trouble before confinement were responsible for the disturbance later.

The prophylaxis of puerperal sepsis is the most important point to be observed in the practice of obstetrics. Its prevention should begin with the training of the medical student. He should have a thorough knowledge of the principles of asepsis and antiseptics and as large a practical experience as possible under the guidance of a good personal instructor. Today the better grade of medical schools give a thorough course in obstetrics and there is no excuse for a re-

cent graduate in medicine not carrying out the rules of surgical cleanliness in his obstetrical work. The results obtained at the present time in lying-in hospitals show what can be done in the way of preventing this disease. The lessening of infection in private practice depends upon how closely the same principles are carried out. The obstetrical work of far too many practitioners is conducted in a very indifferent way. A certain amount of form in the way of antiseptics is observed, but in such an inconsistent way as to render the whole practically useless. I grant you that there is still a great deal of missionary work to be done in educating the public in ordinary cleanliness at the time of confinement. Any dirty old skirt and the worst soiled sheets in the house are regarded as plenty good enough by a certain class of people. The patient rarely if ever takes a bath beforehand, and the napkins used after labor are made up of a nondescript assortment of old rags, which are handled and carefully warmed before being used.

It seems to me that often times physicians well trained in the rules of asepsis and antiseptics as applied to general surgery fall far short in carrying out the same care in obstetrical work. I have seen physicians carefully cleanse their hands, sit on the edge of the bed, with one hand slightly raise the edge of the covering and with eyes turned upward, open or closed, attempt to insinuate the examining hand underneath the bed clothing in order to make a vaginal examination. The danger of contamination from this method is too great to run risks. Such modesty, if so it may be regarded, has at the present day absolutely no place in the handling of obstetrical cases.

It has been my observation that most physicians in general practice depend upon an internal examination in order to determine the presentation and the stage

of labor. One of the first things the physician does on reaching his patient is to make an internal examination. So thoroughly grounded is this procedure in the minds of the laity, that if it is omitted one is asked by an anxious relative or a knowing neighbor if it is not time to make an examination to find out if everything is all right and a lubricant in the way of the family vaseline bottle is produced. With practice one soon becomes adept in mapping out the position of the child by abdominal palpation and the stage of labor is quite easily recognized by noting from above the extent to which the presenting part has descended below the pelvic brim.

Obstetrical work should be undertaken by only those physicians who are well trained, painstaking, and have shown their fitness for this kind of work and their willingness to give it the requisite amount of time. The physician who rushes through with his obstetrical work, who has not the time to carefully study before labor the condition of the patient, position of the infant, shape and size of pelvis, who hurries his preparations, and who makes frequent internal examinations for any cause, does an injustice not only to the patient but to himself, and should not undertake this kind of work. The after care of confinement cases is deserving of more attention than is usually given it.

The common method of bargaining to take care of a labor case for a lump sum of five or ten dollars with the idea of spending as little time over the case as possible is wrong. The usual charge for confinement work is too small and the doctor is himself responsible. The recompense should be in accordance with the amount of time and skill spent at delivery, and the number of visits necessary to see the patient safely through the puerperium.

Allow me to sum up in a general way the prophylactic measures necessary to

prevent puerperal sepsis. It is almost unnecessary to mention that physicians already in attendance upon septic cases or the more virulent contagious diseases should refrain from taking care of obstetrical work, or do so only after taking the greatest antiseptic precaution.

A careful examination of the patient should be made a few weeks before labor to determine the position of the child. An internal examination may be made at this time if thought advisable, and in primiparae pelvic measurements should be taken.

At the beginning of labor an enema should be given the patient and the lower bowel well emptied; the pubic hair should be clipped; the lower abdomen, the inner thighs and the region around the anus and vulva should be thoroughly washed with boiled water and soap. Special attention should be given the mucous folds of the labia. The same regions should then be washed with a 1 to 2000 bichloride solution and a towel saturated with this solution placed over the vulva. I have always made it a practice to do this work myself unless I have perfect confidence in the nurse. At least a clean sheet should be wrapped about the legs of the patient, leaving the external genitals easily accessible. The physician's hands should be thoroughly scrubbed with soap and hot water from five to ten minutes and immersed in a solution of bichloride 1 to 2000, as vaginal examinations are often made to determine the degree of dilatation of the cervix. External palpation will in the majority of cases give sufficient data regarding the progress of labor, and will render an internal examination necessary in only one case out of eight or ten. If, on account of any abnormality, an internal examination be thought advisable, sterilized rubber gloves should be used. It is wrong to make an internal examination without being able to see just what you are about.



In instrumental deliveries special care should be used in the sterilization of everything that comes in contact with the field of operation. All tears of the vaginal outlet should be repaired soon after labor. Vaginal douches are rarely indicated and should never be given as a routine practice. Plenty of time should be allowed for the complete delivery of the placenta and membranes. Special instruction should be given the one in

charge regarding the after care of the vulva and perineum, and sterilized pads should be used during the puerperium. The nurse in charge should carry out the same precautions and use the same care as the physician. Labor is a physiological process. When all observe the few simple rules with which we are familiar, the degeneration of this into a pathological process will be greatly lessened.

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### THE SYMPTOMS AND DIAGNOSIS OF PUERPERAL SEPSIS\*

W. H. SAWYER, M. D.,  
Hillsdale.

There are few diseases having more general manifestations than puerperal fever, ranging from a trifling disturbance of function and comfort, to the most widely distributed infection and complications and the most profound toxemia. It is essentially a surgical disease or wound infection, modified only by the blood changes incidental to pregnancy and the favoring conditions for dissemination. After labor the uterus forms a vast and irregular wound surface, devoid of epithelium and presenting many openings of vessels peculiarly adapted to the absorption of septic and toxic products.

The clinical course of the disease is dependent upon many factors, such as, time of infection, the site of infection, the germ and its virulence, the local conditions present, and the resisting power of the individual. Upon the determination of these factors will be based the prognosis and treatment. Of the bacteria causing the febrile complications of the puerperium, there are two general classes—the non-pathogenic and

the pathogenic. The first causes the morbidity by producing decomposition of retained products of conception, blood clots and debris—the chemical elements of degeneration, or ptomains, being absorbed and a toxemia resulting. While this sapremic intoxication may be so profound as to cause death, it is rarely fatal and belongs to the milder types of post-partum fever.

Of the pathogenic bacteria, the streptococcus is the most common and formidable. It is usually associated with other germs and varies greatly in its virulence. It may be local with few symptoms, or distributed throughout the lymph and blood currents with the most general infection and complications. Its virulence can only be judged by its clinical manifestations. When it exists as a pure culture, the lochia is not odorous; when mixed with the anaerobic bacteria, the discharges are offensive. The presence of the bacterium coli commune has a like effect. Occasionally a pure infection with the staphylococcus, pneumococcus, bacterium coli commune, and the septic vibrio of Pasteur occurs. What the specific germs are which are present

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and causing the morbid phenomena is important and should be decided whenever possible by a bacteriological investigation.

Fever during the lying-in period may be due to other diseases. In some instances it is diagnosed as malaria, but this can be so rarely true that only the finding of the plasmodium would warrant such a conclusion. Practically it is not difficult usually to differentiate the infective process from the adventitious complications. A rise of temperature within the first week following labor should always be attributed to absorption from the genital tract unless a clear demonstration of some other cause is made. The absorption of sterile exudates may be attended with a slight rise of temperature which soon subsides and relieves the anxiety as to its significance.

The general and local symptoms do not materially differ from the wound infections, and may be, for clinical purposes, divided into three classes. The first designated as putrid, in which there is decomposition of debris and discharges, the presence of the saprophytic bacteria, a roughened endometrium, a putulous os, offensive lochia, and general toxemia. The second, or septic form, is caused by the pus-producing germs, and while the bacteria may be confined to the site of infection, they are often distributed through the blood and lymph channels with a general septicemia and pyemia. The third is a mixed infection of the saprophytic and pyogenic germs. Practically, this is the most frequent type of the disease.

In the putrid class of cases, the symptoms appear late, usually after the third day, and are commonly ushered in by a chill, with fever, sweating, and irregular temperature. Repeated chills often mark the history, with continuation of the toxemia, until the removal of the offending particles or nature has constructed an

effectual barrier to absorption. The malodorous discharge is very characteristic of this form of the disease. The intoxication may be so profound as to produce death, or the prolonged toxic saturation, with loss of blood constituents may be fatal by exhaustion. The removal of the sources of decomposition is most often followed by relief from all the symptoms.

The severe streptococcus cases begin early, often times within a few hours after the completion of labor, and are characterized by delirium, mental apathy, and rapid prostration. Occasionally the mental symptoms are absent, and the mind is clear and active throughout. The infection may be so intense that there is little if any rise of temperature, and the system is overwhelmed, without power to react, or to make a conservative effort. The local changes in the fulminating cases may be obscure; more often, however, the disease is ushered in by a chill occurring from a few hours to a few days after labor, and this is succeeded by an irregular fever with repeated chills and evidences of septicemia. The walls of the uterus are passed, the veins and lymphatics are invaded, and infected emboli are carried from the thrombosed veins to distant organs and secondary septic processes are established, giving rise to the most varied complications.

In the milder streptococcus and staphylococcus infections, the inflammation may be confined to the endometrium, with little or no extension beyond, and the symptoms may be the result of toxic absorption as in the pure putrefactive cases. The protective layer of leukocytes stands between the necrotic tissue and the lymph and blood channels and localizes the process. If the infection is not limited to the endometrium, but invades the veins and lymphatics, it may extend to the uterine wall, fallopian tubes, ovaries, and peritoneum, setting up inflammation of these organs. There

may be foci of necrosis, local or general peritonitis, and abscess. There is no organ or tissue that may not be involved in the pyemic condition. An embolic pneumonia is a frequent complication. Each new extension is marked by a chill and increase of fever. The infected thrombi may extend to the femoral veins and give rise to phlegmasia alba dolens. This is a late symptom, but often the first evidence of the existence of sepsis.

The infections resulting from lacerated or abraded areas below the uterine neck are rarely serious except as they are a cause of endometritis. The drainage is good and a barrier of granulation tissue is soon interposed against the systemic involvement.

Within the uterus the reverse is true. Drainage is poor, the normal thrombi are a good culture media and afford unprotected avenues to the whole body.

The symptoms marking the extension of the inflammation beyond the uterine walls are general and local. If a localized peritonitis has developed, the pulse is frequent, hard and small, and the temperature is high and continuous; the respirations are rapid; the tongue is coated; and the bowels constipated; the stomach is irritable, and hiccough may be present. In the beginning there is intense pain in the lower abdomen, which is soon distended and tympanitic. The patient lies upon the back with the knees drawn up. This condition continues, and in the course of a few days an ex-

amination reveals a distinct tumor in the pelvis and lower part of the abdomen. The exudate may be situated behind, at either side, or the womb may be surrounded by a hard mass, the abdominal surface of which has a doughy feel. The swelling usually ends in resolution after a few weeks and health is slowly regained. Suppuration, however, may occur and in such an event is accompanied by all the symptoms of abscess formation under other circumstances. If the peritonitis, instead of being confined, becomes general, all of the symptoms are aggravated, and the history is short and fatal.

Practically, it is difficult to differentiate a cellulitis from a peritonitis. A cellulitis usually starts from a laceration of the uterine neck, though it may be a part of the general infection, in which case it is graver in its import. The swelling follows more closely the pelvic wall and down the vagina, and is not distinctly confined as in peritonitis. Its course and termination are similar to that of peritonitis.

In the malignant types of the disease a widespread phlebitis and lymphangitis are established, often with multiple abscess formations if a reactive resistance has had opportunity to assert an opposition to the morbid process. It then becomes a question of endurance and accessibility of necrotic areas. More often the vital forces are defeated and succumb to the bacterial army.

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**The "Daily Study Habit."**—In the practice of medicine the student days are never over. There is so much to be learned that a long and industrious life leaves one with the feeling that he is but a beginner. The most important habit a young physician can form is the "daily study habit." Let him put in even one hour a day with the reading of journals and books of reference and much can be accomplished. He should keep an account of the time, and if some-

thing interferes for a day he should charge himself up with it. A two weeks' vacation means fourteen hours to be made up. Most men can do more, and no man has a right to do less, no matter how busy he may be. The leaders in our profession make a daily average of five or six times this amount of study the year round, in addition to the demands of an active practice.—*Philadelphia Weekly Roster.*



## THE NON-OPERATIVE TREATMENT OF PUERPERAL SEPSIS\*

J. E. MAXWELL, M. D.,

Decatur.

Since the beginning of time puerperal sepsis has been the greatest foe to the child-bearing woman, and its treatment one of the gravest problems that even the most brilliant minds in the medical profession have had to solve. This subject has occupied the energies, both physical and mental, of the great pathologists, bacteriologists, and internists of all the ages. This is proven by the writings of Galen, Hippocrates, and men of every generation to the present time, who have exerted the most strenuous efforts to discover some rational line of treatment that might stamp out this dreaded complication of labor. Since we have become positive that puerperal sepsis is, in nearly every instance, due to wound infection, and that the use of antiseptics in midwifery has markedly reduced the mortality, the names of Semmelweis, Holmes, and Lister, through whose efforts this improvement has been effected, ought to be forever venerated by the members of every home in the land. The satisfactory treatment, however, has eluded the inventive genius of the obstetrician, and has not kept pace with methods of prevention, having changed very little during the past few years. This has been a subject of strong controversy among the ablest obstetricians, and the treatment is as varied perhaps, as in any disease that flesh is heir to.

I believe no condition demands prompter measures to be instituted and carried out in a common sense manner than the treatment of puerperal sepsis.

Therefore, on being called to see a woman who has been confined within a few days, and finding her with a temperature of 102° or more, one should always make a diagnosis of sepsis and proceed to carry out vigorous treatment until cure is effected, or we are able to prove that the temperature and other symptoms are due to some other cause. Unless the patient is in an alarming condition, which might necessitate a delay for a few hours, she should immediately have a vaginal douche of at least a gallon of a one per cent lysol solution. After this an examination should be made of every part from which the absorption of toxines may take place. The patient should be placed on a table or across a bed, and if she is particularly nervous or sensitive, an anesthetic should be given. The labia should be separated and one should ascertain what damage, if any, has been done to the perineum, removing any stitches which may have been previously taken. The next step is to examine the vagina for tears or abrasions; also for lacerations or inflammations of the cervix; one must note any foul odor, any discharge, and adherent patches or false membranes. At this point it is best to procure a small amount of the uterine lochia for a bacteriologic examination, so that we may be able to decide positively whether we have a true infection, and if so, whether it is due to bacilli, micrococci, or both. The culture can be secured by using a long sterile medicine dropper, preferably curved; it must then be smeared upon a suitable culture medium or placed in a sterile test-tube, sealed, and sent at once to a competent bacteriologist. In my

\*Read before the Section on Gynecology and Obstetrics, at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

opinion this ought always to be done.

Before interfering in any way with the uterus, all abrasions, lacerations, or patches, should be cleaned thoroughly, and cauterized with pure carbolic acid, neutralized within one minute by alcohol. Being assured of relative cleanliness, the interior of the uterus has to be examined. The sterile gloved finger should be carried well into the fundus, while with the other hand we press the uterus down through the abdominal wall, thus making it possible to sweep the examining finger completely around all parts of its interior and clean everything out. Then irrigate with a large amount of normal salt solution and swab out with clear carbolic acid and alcohol. All irrigations are best done with a large sterile soft rubber catheter, which reduces to a minimum the danger of opening up old abrasions or lacerations and consequent increased absorption of toxins. I believe a uterus in this condition ought never to be curetted; all that is necessary to do can be done with the finger; and furthermore, if the above treatment is well conducted, and if there be no hemorrhage, and if the uterus be in a position to drain well, the packing, so often practiced, may do much harm, because it will dam up discharges, cause their absorption, and thus increase the patient's already large burden of sepsis.

Should the bacteriologist's report name the Klebs-Loeffler bacillus as the causative factor, antitoxin must be used as freely as in diphtheria of the respiratory tract. Should the report name any other micro-organism or a mixed infection, the treatment is much the same for one as for another, both locally and generally. After the initial procedures, as enumerated above, there should be given daily, at regular intervals, a hot saline vaginal douche, placing the douche bag only a little above the plane of the patient, in order to insure no more than a gentle flow. The removal in this manner of

uterine or vaginal discharges limits the further absorption of toxic products. A repetition of the intro-uterine douche I believe to be of little or no use. It has been demonstrated by histologic examination that microbes are found deep in the uterine tissues, beyond the reach of douching, hence it is futile to do more than remove detritus by an initial douche and effect free drainage.

Massage of the uterus, if the patient can bear it, together with the administration of large doses of ergot, frequently has a beneficial result, by stimulating uterine contractions, thus closing the open sinuses and decreasing the avenues of absorption.

Since, in puerperal sepsis, the toxins are taken up and carried through the lymphatic system, as well as in the blood current, we have no end of trouble, and consequently we must ever be on the alert to recognize new conditions as they may arise, and meet them in a way indicated by the severity, and always in such a manner as to best conserve our patient's strength, so she may be better able to resist new onslaughts, which are continually being made on her economy.

As air and sunshine are two agents especially destructive to germ life, we recognize, at once, the necessity of placing our patient in a large, well ventilated and light room, keeping her there till well on the road to recovery and all visitors positively forbidden to enter. Next in importance is the sustaining of our patient so she may be able to throw off those poisons which are forever battling for the mastery, and this may be done by administering at regular intervals such quantities of concentrated foods as she may be able to assimilate. Milk, I believe, should head this list, and with it may be given beef juice and eggs, unless contraindicated by a nephritic condition, and if the digestion remains good, as it often does, the patient's fancy may be gratified to some extent, but only

under the closest scrutiny. Should the stomach get in such a condition that it will not tolerate food or medicines, then we will have to resort to rectal feeding and hypodermic medications. High temperatures should be combatted by the judicious use of ice bags to the head and spine. Cold sponging of the extremities and spine, and if necessary, the patient may be placed in a gradually cooled bath, or placed in a cold pack. These measures, however, should always be preceded by some stimulating agent. Antipyretics have no place in this, nor in any other debilitating disease. The bowels should be kept free by the use of whatever remedies might seem indicated, except, perhaps, in an aggravated condition of peritonitis, when they should be checked.

Pain should be controlled by the free use of some form of opium, local applications of ice, and where this is not well borne we may use hot turpentine stupes, with hot linseed meal poultices and hot water bags. The heart should be observed carefully and kept in as nearly a normal condition as possible by the free use of whisky or brandy; one-half to one ounce of either may be given at intervals of from one to four hours, as the conditions demand. Strychnine is another remedy of importance and should be given freely in doses of from  $1/60$  to  $1/30$  of a grain and repeated in from one to six hours, as seems necessary. Digitalis, strophanthus, aromatic spirits of ammonia, carbonate of ammonia, and nitroglycerine also play an important role in sustaining the weakened heart.

Another procedure which seems to help a weak heart out wonderfully is the employment at stated intervals of enem-

ata of a pint or more of a hot normal salt solution high into the bowel, using a medium sized rectal tube. This not only stimulates the heart, but assists in flushing out the kidneys, and aids the patient much in a general way; this, I believe, is as efficient as to introduce the fluid by hypodermoclysis, or to inject it directly into a vein, and has the advantage over these methods in that it produces no pain or nervous shock.

Nervous conditions and insomnia are to be overcome by the careful employment of such remedies as chloral, bromides, hyoscyamus, gelsemine, sulfonal, and the neutral bath. Should phlegmasia dolens occur it would be necessary to elevate the leg, paint the inflamed area with iodine or apply a 25 per cent ointment of ichthyol and vaseline and wrap the leg in cotton batting or wool, and over this apply heat. The leg should not be rubbed or disturbed in any way, lest there may be an embolus carried from this thrombotic site and create new trouble in some distant part. An inflammation of any of the special organs would require a part, or all, of this same line of treatment, as may seem indicated.

Pleurisy or pneumonia arising from a septic condition is especially grave, and a pleural effusion should be looked out for; this however, is rarely large enough in amount to necessitate a paracentesis and a timely use of the salicylates will relieve this condition very satisfactorily. I believe that iodide of potash in this trouble does little good. I have seen antistreptococcic serum used in but one case, in which it was not possible to determine whether it was beneficial in any way or not, but it did not come up to our expectations.

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## THE SURGICAL TREATMENT OF PUERPERAL SEPSIS\*

G. C. HAFFORD, M. D.,

Albion.

A few years ago the treatment of puerperal sepsis was entirely under the domain of medicine. Now, as in many other conditions, surgical art has come to the aid of the physician and given hope and often life to otherwise hopeless cases.

Why is it that, since the recognition of the causes of puerperal sepsis, death statistics in hospitals have declined to a small fraction of one per cent, while in general practice the old death rate prevails? There are several reasons. The accommodations for aseptic work and after-treatment are much better at hospitals than at the home, but I must add that the general practitioner has not kept up with modern work, and I class myself with the general practitioner; originally the hospital death rate was much the highest, but now it is much the lowest. Thus we find reported 6,000 cases of labor with one death, 7,000 with one death, 8,796 cases, mortality .09%, etc. Much of this high death rate is undoubtedly due to practice by ignorant midwives, but if all general practitioners would practice and preach aseptic midwifery, our death rate would be bound to decrease. DeLee says "the aseptic conscience has not been awakened in the immense bodies of obstetric practitioners, \* \* \* the saddest commentary on the boasting of modern medicine is the continued prevalence of puerperal infection. We hear from all sides that women should not die, yet they do die, and die in large numbers every year." To quote farther, for his words are so finely descriptive of actual conditions, "When asepsis is attempted, it is a half-hearted

inconsistent effort and does not in the least resemble the punctilious technic of the modern operating room. Indeed, the conditions under which most babies are born forbid the fine practices of the surgical amphitheater. The public (because the doctor has not educated it) refuses the accoucheur the advantages which the surgeon enjoys. Among the poor the darkest room, the oldest bed clothes, a few treasured rags constitute his field of operation, a neighbor or the husband is his assistant, the patient has a fear of water, and out of these surroundings he is expected to draw a successful issue. Among the better class the conditions improve somewhat, but it is the rarest exception when the accoucheur may work under half as favorable auspices as does his brother, the surgeon.

The surgeon sterilizes a small area of skin, operates from 30 to 90 minutes, closes up the wound, seals it, and the dressing lies undisturbed for ten days. The accoucheur has to operate, "*inter feces et urinam*," the large surface of skin and mucous membrane is impossible of sterilization, the wound is more or less open from five to forty hours (the labor), the operative manipulations have to be carried out with greater rapidity, the niceties of aseptic technic are likely to be lost, and finally the operative wound is an open one, communicating with the air for 14 days."

The subject may be divided into prophylactic or preventive treatment and curative. First, let surgical principles prevail in every confinement case. Thorough asepsis, not to the extent of scrubbing the vagina in normal cases, of denuding the epithelium, thereby making an avenue for the entrance of infection

\*Read before the Section on Gynecology and Obstetrics, at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

afterward; nor routine douches after normal labor of which I strongly disapprove; but asepsis of the external parts of the patient, the dressings, the examining hands, and everything else she will come in contact with. The use of rubber gloves is to be highly commended. Byers lays a special emphasis on the abdominal examinations only, but this is impractical and needless. Guard against infection from the attendants, clothing, and all external sources. As most cases are infected from without, so we find the commonest cause to be the most prevalent germs staphylo- and streptococcus, bacillus aerogenes, tetanus bacillus, gonococcus, and the Klebs-Loeffler bacillus have been found in the discharges or in the blood, and if they are identified, they have an important bearing on the treatment, especially so in the use of the various serums. Anti-streptococcic serum has proven of undoubted benefit in a good many cases, but as the majority of cases are probably mixed infections, its use should be more limited than we have supposed. However, it is perfectly harmless and should be used as an auxiliary to other lines of treatment, more than as a specific. It is in the cases of infection by putrefactive germs, the saprophytes, where thorough douching and curetting are of most use. I think the word infection is here a mistake, for those germs, inasmuch as they attack dead matter only, cannot affect the living tissues; these are the cases probably where we get the most odor from the discharges, and against which the best guard is a careful expression of all uterine contents after labor.

After the labor, one should carefully repair all lacerations and cover all denuded surfaces possible, remove all shreds, membranes, and clots, and endeavor to get a firmly contracted uterus. We start out usually with the supposition that there is no auto-infection, that all infections come from without. Of

course, the woman may have a pus tube and an appendiceal abscess, a cystitis or a pyelitis, a carbuncle, a suppurating lung, or a blood infection, etc., and if we are aware of any of these conditions we may be able to do some preventive work, in addition to that which I have laid down, but such auto-infection is rare. Doerfler claims that 98 or 99% of all cases of sepsis are the result of examinations and manipulations by the attendant; this, it seems to me, is putting it a little strong.

In cases where infection is known already to exist, there should be thorough cleansing and douching and disinfecting; never leave douches to the nurse, unless she is to your personal knowledge competent and trustworthy. Davis divides methods into three classes:

*Valuable*—Curette, catheterize, sponging, douching, counter irritants.

*Experimental*—Serums, nucleins, Credé's ointment, formalin injections, hysterectomy.

*Injurious*—Antipyretics, heart stimulants, stopping purgation, etc.

He has not mentioned salt transfusion, which I believe is of highest value. The use of Credé's ointment seems to have fallen into disfavor, while the treatment by formalin injection seems to have died about as soon as born. Recently rectal injections of formalin have been attracting some attention.

Ninety-seven per cent of the mouths of normal new born infants have been found to contain germs, while cultures from the mouths of babies from Cesarean section showed no growths. This shows how easily infections occur from the vagina, which often, indeed normally, harbors streptococci, staphylococci, and the colon bacillus. Germs are in the uterus later in the case, in a large majority of both febrile and afebrile cases. If we can keep them from gaining access to the tissues or circulation, at least in harmful quantities, or if we can keep



the system in condition to repel them, which means a high degree of leucocytosis, we can prevent dangerous septic complications.

In cases of actual infection, with chills, high temperature, rapid pulse and threatened peritoneal invasion, we may douche, curette, cauterize raw surfaces, and use the various serums indicated; abstain from either drugs or foods by mouth, in order to prevent peristalsis as much as possible, and if an abscess forms, evacuate through the vagina if possible; if not, by laparotomy with drainage; remove pus tubes, etc. In a condition which varies so widely there can be no fixed rules, any more than the broad rules of good diagnosis and good surgery. Much common sense is needed, and I know of no other condition where experience counts for so much; for instance, pelvic exudate, to know just when it can be taken care of by nature, and to know the earliest moment when it becomes an abscess, and needs evacuation. Puerperal sepsis is of a very complex nature and deductions may not be made from a single case; individual operators will also vary; one may prefer a sharp curet, another a dull one, and both will give good reasons for their choice. It is not the instrument but the knowledge of how to use it, and especially when to use it.

There are many avenues by which, if we are not careful, we will spread infection, instead of limiting it, for instance, by massaging infected breasts or lymphatics or veins, or if in examinations or cureting, we use force enough to break down the barriers of a beginning abscess; or if we let the parturient woman lie flat in emptying the bowels or bladder, especially if she uses a poor bed-pan, or worse, uses cloths to receive the discharges. I believe every normal case should be assisted to rise, almost from the first day, to obey the calls of nature.

Lately hysterectomy is much talked of in connection with these cases and

there seems to be a tendency among some to make a common use of it. It is at times undoubtedly indicated for septic endometritis or metritis, for sloughing myomata, rupture, perforation, etc., or even for partial metritis, as in an infected placental site, or uterine abscess, which curettage has failed to benefit. The hysterectomy may be complete or partial, vaginal or abdominal; opinions are divided as to the best route, but, as before stated, no fast rules can be made. I rather believe that hysterectomy should have a very limited application. It seems to me that cases must be very few which will recover from it, if they would not recover with simple drainage. Gissier says, "the procedure is demanded very rarely. It is without aim and is bad; either infection is localized, when it is not demanded, or it is general, when it is useless." The resection of thrombotic veins, while operating in the pelvis, seems to me to be eminently proper; to leave such a condition to break down and become a focus for fresh infection, or for the contents to loosen and float away, assisting in general infection, or forming metastatic abscesses, is surely reprehensible practice.

In cases of acute peritonitis following puerperal infection the same questions come up for consideration as in peritonitis from other causes, and much experience and careful discrimination is required in the treatment. The diagnosis between mechanical and dynamic obstruction will frequently be puzzling, and often only exploration will decide. Where obstruction is from paresis, distension, even if only moderate, may be often successfully treated by opening the bowel and establishing a fecal fistula, by tube or otherwise.

In a recent publication, Leopold reviews his experience with operative treatment of puerperal peritonitis. He regards it as a promising field, on condition that the incision and drainage tubes



are protected so carefully that no possibility of secondary infection is permitted. In five cases of acute generalized peritonitis, three recovered. They were all operated on by the second or third day of the peritonitis, while two others, not operated on until the fifth day, succumbed, the intervention having come too late. The abdominal cavity was filled with pus or a dirty reddish fluid, the intestines were congested and covered with deposits of fibrin, the lymph spaces in the right wall of the uterus were distended with pus, and streptococci were cultivated from small abscesses in the left corner of the uterus. These findings emphasize the importance of prompt interference, not allowing the proper moment for intervention to pass.

This, he thinks, is when high fever, increasingly rapid and smaller pulse, increasing distension and tenderness of the abdomen, accompanied by hiccough and vomiting, while the complexion and expression indicate severe infection, and an area of dullness develops and spreads in the hypochondrium on both sides. A laparotomy under such conditions can do only good. It is necessary under all circumstances to open and drain the Douglas pouch into the vagina, and it is also wise to drain the region of the hypochondrium.

Lennander says, "After every operation for acute peritonitis the patient must be impressed with the necessity for regular evacuation of the bowels and avoidance of indigestible articles of food."

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#### DISCUSSION ON THE FOUR PRECEDING PAPERS.

**Dr. Rolland Parmeter, Detroit.** The papers have covered the subject so thoroughly that there is little to be said. However, I have a few illustrative cases that may be interesting to you, taking up the question of the cause, serum therapy and other methods of treatment.

The cause has been mentioned and definitely settled. It is a true wound infection acquired in necessary or unnecessary manipulation. The congestion of the tissues favors the progress of any infection. At present we do not know of any special predisposing factor to infection at this time, unless the large loss of blood favors such. Also the large wound surface inside the uterus is the usual port of entry.

The picture of the disease is influenced by many conditions, the quantity and above all the varying virulence of the germ infecting, the mode of infection, and the local resistance of the tissues involved and of the organism as a whole. No doubt each and every one of us knows from his own experience and expensive knowledge how difficult it is to make a definite prognosis in spite of taking all possible conditions into consideration. Cases mild in the beginning often taken on a severity of conditions and perhaps result fatally, while the opposite is quite likely to occur. This in spite of the advance in therapeutic agents and our efforts to improve our ability

to cope with this condition, there are authorities who believe that the natural protective strength alone is the sole method to reach our goal and that all means that disturb this natural protective strength are in error. Our pathological knowledge has given us a clearer understanding and our artificial means for combating the disease are really on rational grounds.

Before beginning our treatment we must inform ourselves concerning the conditions at the time of the birth, how many examinations were made and by whom, and particularly with regard to the third part of the labor. Our examination should include the whole body, especially the abdomen with regard to the involution and painfulness of the uterus, and the condition of the lochia. It is necessary to know this beforehand in order to shut out other possible sources of fever, among which we may mention mastitis. That our therapeutic efforts will be undertaken with a better wisdom from the findings brought out by our examination is self-evident. A complete and thorough examination is a "sine qua non" for our future actions.

After the bodily examination, take up the vulva and perineum in order to shut out all and any sources of infection from these parts. Infection can take place from a perineal wound as well as from any other place. Having examined

the external genitals, using now a sterile speculum, we are enabled to view the vagina and portio, and finding nothing to which we can ascribe the infection, there is left the uterine cavity. Wounds of the vagina and portio we designate as *ulcera puerperalia*. These usually heal spontaneously after being cleansed and touched with tincture of iodine and dusted with iodoform. Superficial lesions about the genitals were treated with compresses of lead water or aluminum acetate, kept moist and changed often.

To determine the exact cause of the infection and to get an insight into the number and kinds of bacteria which the uterine discharge contained, we made use of the customary Doederlein's tube with which under proper precautions a sample was taken from the uterine cavity. This was first examined as a coverglass preparation and cultures made, enabling us to tell whether we had a mixed infection, or whether streptococci, gonococci or other germs prevailed. An ideal method would be to use animal inoculation to give you an idea of the virulency.

All our methods of local therapeutics depend on the same surgical principles that govern other infected wounds, namely, examination and removal of the cause of congestion and damming back of the discharges, mechanical cleansing of the wound cavity, mechanical removal of broken down and necrotic tissues, drying and draining the wound cavity.

Many or nearly all of our cases were cases of criminal abortion. Instead of delaying for the result of microscopical examination of the discharge, all uteri in which any infection could be inferred from the history, and this includes practically all, were douched out, after palpating, with 50 per cent alcohol, and packed with iodoform gauze soaked in the same alcohol, loosely or hard according to the amount of the bleeding in the individual case and the contraction of the uterus.

From the extreme active method of treatment of cases in the early stages, most every person of importance has, recently or within the last five years, taken a decided stand. For instance, the method given to us by the French school, that of the use of the sharp curette, has wholly fallen into disrepute. The use of the sharp curette can under certain circumstances lead to the most dangerous results, disturbing and hindering natural processes already begun, or disseminating already localized processes.

Zweifel's method of cleansing out the vagina

of secretions retained by using sterile sponges the second day after the birth, is but another example of the mechanical removal of infective material.

The value of antiseptic solutions for douches is questionable. Plain sterile water used in sufficient quantities to aid in washing out the blood clots, changed remnants of the secundines, etc., is probably the best. The act is a purely mechanical one. The use of sublimate, on account of its poisonous properties, is of course excluded. A weak solution of lysol is in general use in many clinics.

The method of intra-uterine treatment has undergone many changes, continual irrigation, the repetition of intra-uterine douches a number of times daily—the laying of glass drains is not often used,—packing the cavity with iodoform gauze or gauze soaked with alcohol, etc.

Among the methods that seem to give very good results, is that of Sitsinky, who cleans out the uterus with the fingers and the dull curette, douches with a sublimate solution, follows this with hot sterile water, 50° C., dries out the cavity with gauze, and then gives a douche of 90° alcohol.

The use of ergot and its results are of a purely mechanical nature. We have learned that the spread of erysipelas, especially on the extremities can be prevented by the use of various means, such as strips of adhesive plaster applied to the skin and exercising a purely mechanical function in compressing the superficial lymph channels. The obstetrician does the same thing when he gives ergot, by contracting the flabby subinvolved uterus, he closes the interstitial lymph spaces, thus preventing the further dissemination of the harm-producing elements. Much will depend, however, upon the choice of a good preparation.

Heat and cold accomplish quite the same result, hot vaginal douches, 45° C., ice bag over the hypogastric region. The latter is of particular value, especially when there is pain upon pressure over the uterus. Both serve as aids to involution. Pain upon pressure over the uterus generally points to a beginning lymphangitis. The ice-bag here plays the part of an antiphlogistic.

Formerly many writers laid great stress upon the internal medication and much use was made of the antipyretics. v. Winkel formerly used quinine, 3.5 g. per diem, sodium salicylate, especially when the joints were involved. Antipyrine, phenacetine and all these various preparations have been used. At the present time much in-



terest seems to have been aroused by another new preparation, which I will not mention. We have not made use in our clinic of any of these drugs that I have named. The appetite is too much disturbed, they have unpleasant by-effects, and in severe cases are entirely without effect. The use of sodium chloride as a subcutaneous infusion in quantities of one to two thousand grams per day, or even intravenously or by clysis seems to increase the quantity of fluid in the body and act as a diluent of the poison. In our cases we think we have seen good effects. Some writers can see no good results from such treatment.

The knowledge of the bactericidal strength of the various silver preparations has more and more led to their use, and especially has this been made use of in the treatment of puerperal fever. *Argentum colloidal*, which when dissolved in water becomes collargol, upon the suggestion of Credé was first used against puerperal fever as a 15% silver ointment (*Unguentum Credé*) and has found many users. Many cases have been reported showing positive and negative results from its use. The method of use of the *unguentum Credé*, is as follows: after cleansing the region to which the application is to be made, (thigh, back, arms, etc.,) with soap, brush and warm water, removal of the fat with benzine or chloroform, the most thorough "rubbing in" of the salve is undertaken. This continues for from ten to fifteen minutes and is to be done by the hand of the nurse, three grams to be used as the dose. Cover the surface with cotton protected on the outside with a substance impervious to water.

The serum treatment of septic processes is about ten years old and originated from the researches of Marmorek. The first results based on the treatment of human beings were made known to the Paris Society of Biology in February, 1895, by Charrin and Roger, who reported sixteen cases in July. In December of the same year Chrobak reported three cases to the *Wiener Gesellschaft der Aerzte*.

In the beginning the use of the serum was based upon the same theory as in the production of the anti-diphtheritic serum, with which such brilliant results had already been obtained. It had to be demonstrated that in order to obtain results the theory upon which the serum was produced must be changed. In the case of diphtheria the disease was dependant upon toxins produced by bacilli which remained localized

in the diphtheritic membrane. In streptococcic infection, the streptococci themselves invade the tissues as rapidly as possible through the lymph channels from the original point of infection.

Behring denies the parallelism of virulence between animals of the same family and in a certain measure between man and the lower animals. We further believe that the other bacteria are not at all or but slightly influenced by a serum derived from any one of them. Therefore to produce a serum which will give results in different cases of infection depending for its cause on one or more microbes of the streptococcus family, we must produce a serum from these different streptococci themselves, that is, we shall produce a so-called "polyvalent serum."

We have passed through all possible stages of development in the treatment of the disease, the early use of cathartics, somewhat later the "gray salve," which you will remember is a silver preparation and used as we now use the *unguentum Credé*, without knowing why, to the use of collargol, serum, and the surgical removal of the infected organs.

We are still faced with the fact that in many cases we are entirely unable, with our present knowledge, to cope with the disease. There is still left the best treatment of all, prophylaxis. It stands us in hand to be masers of the latter method, thereby fulfilling our office as physician, which is that of prolonging life and relieving suffering.

**Dr. E. T. Abrams, Dollar Bay.** There is no more interesting subject than that of puerperal sepsis. It is a subject that every one of us here is interested in. There is not one of us but may be called upon in a confinement. There is not a solitary individual but may become infected. About one out of every three patients that we see among the multiparae, have had abortions either accidental or with malice aforethought. Moreover two out of three are probably suffering from a severe or mild leucorrhea.

In our country practice patients can not be treated in the same way nor can we get the same results as in a large hospital. Those who have been trained in hospital work will find that the conditions are vastly different when they come to enter general practice.

If you stop to think, you know just as well as can be that the statistics in hospital reports are drawn from among healthy primiparae, decidedly different from those to be found among the multiparae. I do not think the hospital statistics can



be honestly and fairly compared with the statistics in general practice.

The first thing to do when you are called to a case is to get her history, her gynecological history, and know just what we have to deal with. Find out if there are large cervical tears, secreting purulent matter, if you have a relaxed vaginal outlet, due to laceration of the perineum. If the former exists, use the ante-partum douche and keep it clean, if possible.

Personally, I believe that if we are to get as good results as the surgeons, we are to be just as particular as the surgeons. Therefore I see no reason why one ought not to use rubber gloves.

The papers were simply magnificent. I wish to compliment them on presenting their subject so beautifully. I want to say that I believe surgery should come first. As far as Credé's ointment is concerned, after you have had as much experience as I have, you won't buy any more. I have never had any favorable results from it. Where I have a severe case, I usually make use of it, so that I may feel sure that no possible chance has been overlooked.

So far as the curette is concerned, I wouldn't bother with it. Examine the placenta and find out whether it is complete or not. If not, go in after it. Don't be afraid to push your hand up into the uterus and worry to think that it is carrying in infection. Go in, find out what you have got and complete your work. Complete your work and 99 out of every hundred won't have any infection.

I have tried the serum and have been disappointed in every single case.

In your treatment of a case of infection, first diagnose your case. Find out if you have to deal with gonorrhea. Don't curette. Pack with ice. If you have an old infection the uterus is not tender, unless you have a gonorrheal infection, when it is tender. Don't wait until pus forms in the pelvis and you get a fluctuating mass. That isn't what you do with a felon. Cut in, and if you can't do so, get some one that can. Open it up and let the mass out. Examine the serum and you will find it loaded with germs. I believe in the prior treatment. Make a free incision, pack with iodoform, wash out. I have

had magnificent results.

**Dr. H. W. Yates**, Detroit. One thing that has not been spoken of, is hand sterilization. I believe there is altogether too much dipping our hands in sterile solutions. After scrubbing with good sterile water and sterile brush, our patient is much better protected than if we depend on hand sterilization by other means.

One other thing, the leaving alone of the uterus after thorough exploration. The less you douche, the less you put in gauze, the more you depend on nature taking care of it, the better it is for your patient.

**Dr. J. E. Davis**, Detroit. To sum up all that has been said, means prevention, drainage, and supportive treatment.

One or two little points in the prevention. Thorough sterilization of the hands before doing this work. Whether you confine them on the bed or on the table, avoid infection from the feces, which in my mind is an important consideration. Another thing is the power of the saline solution to augment osmosis makes it one of the most valuable irrigating solutions that we can use. The current of osmosis will be toward the canal of the uterus.

Strychnine in the treatment is not very valuable as a stimulant except for the first dose. The true stimulation must be found in the line of some of the foods. Try to stimulate with food that is easily assimilated. Do better work than if you try to use drugs.

Try to prevent. If you have infection, use drainage and support the patient with foods that can be easily assimilated.

**Dr. J. H. Carstens**, Detroit. I rise to emphasize the position taken by Dr. Abrams. The only thing proper in pelvic abscess is to open and drain. As to curetting and packing, I am opposed to packing after curetting. As to curet, I endorse Dr. Abrams' statements. Never the sharp curette in puerperal cases.

As to the anti-streptococcic serum treatment, I have seen it tried and have tried it myself, and have found no value in it.

**Dr. R. M. Gubbins**, Ceresco, also endorsed the opinions as expressed by Drs. Abrams, Davis and Carstens.

## SOME FACTORS IN VOLITIONAL CONTROL DURING LABOR\*

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JAMES E. DAVIS, M. D.,  
Detroit.

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There can be little or no doubt that the intrinsic nerve supply of the uterus is capable of continuing contractions in this muscle after all extrinsic stimulation has been removed.

The uterus along with all other non-striated muscles, is not subject to volitional control, yet the nerve supply is derived partly from the cerebrospinal system through a few fibres from the third and fourth sacral nerves and principally from the sympathetic system which, according to Lee, Frankenhauser and Rein, is probably by way of large trunks from the inter-iliac plexus which pass down on either side of the rectum and follow the course of the utero-sacral ligaments, terminating in the large cervical ganglion.

The interrelation by fiber tracts of the parts of the sympathetic to the central nervous system is by the large prevertebral hypogastric plexus, being connected, on one hand, with the cerebrospinal nerves and the sympathetic cord, and on the other hand, forming centers for the innervation of the viscera.

The cerebrospinal motor (centrifugal) fibers have their cells of origin in the spinal cord or cerebral axis. These fibers condition the dependence of the cells of the sympathetic upon the cerebrospinal system.

The sympathetic motor (in general, centrifugal) fibers have their cells of origin in the ganglion of the sympathetic system.

The functional interrelation of the cerebro-spinal symptoms is not yet clearly understood. It is characteristic of non-striated muscles that they can be stimulated to strong action by emotions—as evidenced by the blush of shame, the diarrhea, the passing of the urine because of fright and the sudden free perspiration of embarrassment. While as a rule these cannot be influenced directly by the will, yet Bechterew observed a patient with hysteria change the size of her pupil by force of will, and some individuals are said to voluntarily arrest the action of the heart.

Visceral functions, under normal circumstances, make no register of their nerve stimuli sufficient to rise to consciousness excepting in increased visceral action, for instance the pregnant uterus does not, as a rule, until labor is in progress or until expulsion of its contents is threatened, but contractions have been taking place from the inception of pregnancy. The knowledge of these conditions is affirmed by some women, and the reason is the same as observed when the heart beat is felt as in palpitation after exertion, or in sensory hyperexcitability of central origin.

The present state of our knowledge of the sympathetic system in its interrelation with the cerebrospinal system is yet unsettled, but sufficient data is in evidence to enable us to give better advice and care to our obstetrical cases.

We cannot consider involuntary and automatic movements per se of the uterus on account of our undeveloped knowledge, but the number of cases of

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labor in which the nerve stimuli do not rise to the consciousness of the patient is exceedingly small, and, moreover, this class of cases requires no assistance from the obstetrician (nature's first assistant), who stands by and views with amazement a demonstration of perfect correlation of natural forces working without fanciful or marked registration upon consciousness.

We have to do with that vast majority of cases in which volitional control is a factor, varying in effect from almost total inhibition of contractions to the violent stimulation attained by the habitue of miscarriages.

The educated woman, if possessed of a physiological education, should have that perfect control of emotions which allows a natural correlation of functions, but the evidence seems to demonstrate that this is a rare acquisition, and the so called child of nature who knows nothing more than to live naturally, is the unconscious beneficiary of obedience to physiological laws, while her fortunate yet unfortunate sister is a martyr to the follies of the society of which she is an integral part. The factor in volitional control here suggested is, granted that the procreative function of mankind is one of the highest duties, that a correct heredity can only be attained for posterity by proper physiological education for maternity. It may require two or more generations to adjust the cerebrospinal cells of origin in the cerebral axis from an undue control of the cells in the sympathetic.

The question of how labor is retarded by volitional power cannot be answered as a rule by the evidence presenting in a given case, at the time of labor, for there is more in this problem than endurance by strong will power of suffering through lack of this same power. The nervous system must be considered in its entirety. The sympathetic is not separated from the cerebrospinal system,

though we attempt to separate them for convenience in study. A study of the patient's entire nervous system must include even the intrinsic nerve supply: yet we make the mistake of viewing one strong element in the extrinsic supply and concluding therefrom that the patient has a well developed nervous system. With proper correlation in all nerve stimuli no retardation is possible, but with disturbance of the functional interrelation of the sympathetic and cerebrospinal systems, by so called emotional causes, there occurs marked retardation.

When a patient is possessed of a normal nervous system and the reserve motive power of a disciplined will, it is easy to comprehend how she may aid labor. Many anatomists describe the vascular and nervous supply of the uterus under the same heading, as the relation is unusually intimate. The investigations of Claude Bernard, Dastre, Morat and others have demonstrated the existence of two kinds of vascular nerve fibres: one contracting and the other dilating under excitation. It is easily understood how, under the foregoing conditions, the blood supply reaches its maximum which, together with the balance in the entire nerve apparatus, make for the greatest aid in expulsion.

The entire period of gestation should be devoted to the nourishment and disciplining of the nervous system in order that nature's greatest operation can be done by her instruments with all possible haste and precision.

An environment of self indulgence is most certain to unfit the emotional nature for the task of labor. Discipline on the part of the patient herself, from her friends (very frequently it is much better for her to be among strangers than friends) and from her nurse and her physician: all of which should be firm, tactful and kind. The majority of patients confined in maternity hospitals are best fitted for normal labor.



### Discussion.

**Dr. H. W. Yates, Detroit.** Dr. Davis' paper is very interesting and deals with comparatively virgin soil. This thought entered my mind, that there must be some kind of muscular fibers in the uterus similar to those found in the heart. In other words, we do not find in the uterus any definite set of muscle fibers that sets up contractions, or maintains them after they are set up. There is much similarity between them in this regard. The same thing may be said about the heart, that there is no set of fibers or ganglia that will explain the contraction of the heart muscle. The old thought was that the ganglia in the

septum was the one that instigated the contraction and the other fibers kept them up. We know that this is not true, because certain areas can be isolated and then the contractions be maintained. It strikes me that the same may be the explanation in the case of the uterine contractions, an inherent property of contraction. What is the practical value of this deduction, if this is right? Simply a matter of nutrition. The patient should have a suitable amount of exercise, work, and the nutrition should be looked after to keep up the muscular nutrition and tone.

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### VERSION\*

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**E. G. EDWARDS, M. D.,**  
Grand Rapids.

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Version, or turning, is the substituting of one presentation for another. The term applies to all manipulations having in view the substituting of a favorable for an unfavorable presentation. There are two modes—cephalic and podalic. Cephalic version is the substituting of the head for some other presentation; podalic is the substituting of the foot, or breech.

Version, either cephalic or podalic, may be accomplished in three different ways—by external manipulations only, by internal manipulations only, by external and internal manipulations combined.

Before turning, the genitals should be cleansed with soap and water, and an antiseptic douche given; the bladder should be emptied, by catheter if necessary; if there is time, an enema should be given; the operator's hands and those of his assistants should be made aseptic; the position of the child in the uterus

should be ascertained, and likewise what obstructions are to be overcome pertaining either to the uterus, the child, or the pelvis. This knowledge can almost certainly be obtained by careful abdominal palpation, and by vaginal examination.

Verson is indicated in transverse presentations, that is, any presentation of the child except the head, breech, knee, or foot; even these, under certain circumstances, may require adjusting. The present recognized mode of treatment in transverse presentations, as when an arm or shoulder is presenting, especially when the waters have escaped, is podalic version; that is, introducing a hand into the uterus, finding and bringing down a foot and making it and the breech the presenting part. This method was taught when I was a student and was practiced by me up to the year 1860, when, being one day confronted with a bad case of transverse presentation many miles from any skilled assistance, I hit upon a plan of turning with such happy results that I was encouraged to try again. Being equally successful on the next and on

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\*Read before the Section in Gynecology and Obstetrics, at the Jackson meeting of the Michigan State Medical Society, May 23-25, 1906.

subsequent occasions where version was necessary, I became satisfied as to its value. The following explains the case and the method: In the year 1860, I was called into the country to attend a case of labor. I learned that my patient had been in labor for about four hours; that the waters had escaped an hour before my arrival; that a hand was outside the vulva; and that the pains were very severe and forcing. On examination, I found the hand external with the shoulder tightly impacted in the pelvic inlet. As I was about to turn by podalic version, as that was the only mode which I had practiced up to that time, it occurred to me that if my patient's shoulders were lowered by elevating the pelvis, that possibly the child would follow the law of gravitation and fall downwards, back into the uterus. I at once put my idea into execution by raising the foot of the bed; then in the absence of pain, I introduced two fingers and pushed against the impacted shoulder, when shoulder, arm, and hand receded into the uterus. By palpation, I ascertained the position of the child, and then it occurred to me to try to make the head present. With my two fingers through the os, I pushed the shoulder in the direction which tended to draw down the head, while with my external hand I pressed the breech up towards the fundus. Operating thus, that is, with the fingers internally coaxing down the head and the other hand externally urging up the breech, I gradually succeeded in bringing the head to the pelvic inlet.

Holding the child in this position, with my fingers against the head and my external hand over the breech, which was now raised to the fundus, I had the patient restored to the horizontal. Soon a bearing-down pain secured the head as the presenting part. The pains continued and the child was expelled alive, without further assistance. Even the placenta was expelled without further aid,

save a little external pressure over the uterus and a little internal coaxing with the fingers. The mother suffered neither from shock nor fever, and both she and the child did well.

Since my experience in this case in 1860, postural cephalic version, as given above, has been my method of turning. Having now tested its efficiency and practicability for a period of forty-five years, during which it has seldom failed me, even under the most trying and unfavorable conditions, I am able to speak positively as to its merit.

With regard to the position in which the patient is placed in order to facilitate the recession of the mal-presentation into the uterus, I wish to state that, although it is now known as the Trendelenburg position, at the time when I first made use of it in 1860, I had never heard or read of the Trendelenburg position. Out of the exigencies of the above-mentioned case, the method was evolved.

The following cases are given to illustrate the success of turning by my method of cephalic version in transverse presentations, after the waters have escaped:

**Case of Hand and Foot Presentation**—In 1886, I was called to consult with Dr. P. of London, Ont. On my arrival, the doctor said, "I have a strange case: a hand and a foot are presenting and are outside the vagina. I was called in the night," continued he, "and found a midwife in charge, who told me that the waters had escaped some hours before and that an arm and a leg had come down. I found this to be the case," he said, "and at once tried to return the arm and bring down the breech, but could not succeed as they were so tightly wedged." The patient had been in labor more than thirty hours and on examination, I found her pulse small and weak, running over 130 per minute. She had vomited a great deal and was very restless and thirsty, and greatly exhausted. The pains had entirely ceased and the vagina was hot and dry.

The doctor, at my suggestion, drew off the urine. I examined as to the position of the child, and found a hand and a foot outside the



vagina, as I had been informed. By my instructions, she was placed in a position which elevated the pelvis and lowered the shoulders. I then took hold of the leg and gently pushed, when both leg and arm quickly receded into the uterus; then with two fingers through the os, and with my other hand over the uterus, externally manipulating as described in the first-mentioned case, I soon had the head presenting. The patient was then restored to the horizontal and delivered by forceps. The child was born dead, but the mother made a good recovery.

**Case of Arm Presentation with Impacted Shoulder**—A few years ago I was called to a case of transverse presentation. The family was very poor and an unskilled mid-wife had been employed to attend. I learned that the patient had been in labor nearly two days, and that the waters had escaped hours before my arrival. On examination, I found an arm presenting, with shoulder tightly impacted, and a hand, dark and swollen, outside the vulva. The patient was greatly exhausted and there was no evidence that the child was alive. I drew off the urine by catheter, raised the pelvis and gently pushed the presenting part; when, aided by gravitation, arm and hand receded into the uterus. By the method described above, I brought the head as the presenting part, and maintaining it so, I had the patient restored to the horizontal, and as the os was dilated, I applied forceps, gave chloroform and easily delivered. The child was dead, but the mother made a good recovery.

**Case of Prolapsed Cord**—I was called in consultation a short time ago to a case of prolapsed cord, with head presentation. The waters had escaped, the cord had descended to the vulva. Its pulsations were very weak and the child was in great danger. I at once elevated the pelvis and pushed gently against the head, when it and the cord receded into the uterus. I placed the cord above and brought the head down alone. Labor proceeded naturally and the child was saved.

**Pelvic Deformity**—In cases of deformed or contracted pelvis where the deformity or contraction is not so exaggerated as to preclude the hope of delivering a living child, it is argued that podalic version affords it a better chance; but I question the wisdom of this plan, and much prefer to adjust the head to make it present correctly, if it does not

already do so, and extract by forceps; for although it may be possible to safely deliver by podalic version, yet, in my opinion, it is too great a risk to the mother, as, should you fail in extracting the after-coming head, you must perform craniotomy, which, added to your previous operation of turning, subjects her to a double shock from which she is often unable to rally, and thus both mother and child perish.

**Head above the brim of the pelvis**—It is likewise taught that when the head is above the brim of the pelvis and movable and cannot be made to enter, podalic version is indicated and should be adopted, as it is much less dangerous than using forceps. Let us see if this is the case.

If the head is above the brim of the pelvis, there must be some reason for its remaining there, otherwise, if it be a correct presentation, or if you adjust the head to make it present correctly the pains would naturally force it down. Now, suppose you turn by podalic version and succeed in delivering the body, does not the same same difficulty in delivering the head confront you as at first? Certainly it does. You must now take forceps after all, and if you fail, you must resort to craniotomy. This is surely too great a risk. Would it not be better to make the head a correct presentation, if not already so, and either extract by forceps or satisfy yourself that delivery is impossible? In which case, although Cesarean section, craniotomy, or symphysiotomy must be performed, the patient has the advantage of not having previously been subjected to the shock of turning by the feet.

Six years ago I witnessed a case which illustrates the danger of podalic version under just such conditions—

Two doctors besides myself, were in attendance. The head presented but would not enter the pelvic inlet. I advised forceps, but the two other physicians thought it the better plan to turn by podalic version at once, which one of



them skillfully performed. After delivering the body, they could not make the head enter the inlet. They were capable medical men, and did their utmost, using every means at their command, but failed; and as a last resource, performed craniotomy, which, added to the shock already given by turning by feet, resulted in the death of the patient about twenty-four hours after the operation. Death was due solely to shock, as there was no hemorrhage or other complication, excepting, of course, the cause of the trouble—too large a head for the pelvic opening, or pelvic inlet. In this case would it not have been better to have adjusted the head and, if failing in getting it to enter the inlet, to try forceps and if they failed, to have used craniotomy?

**Another Case**—I was the third physician summoned to assist in a case of labor. On my arrival, the physician in charge informed me that when he reached his patient, she was having forcible pains and an arm was presenting. He immediately had another doctor called to assist. They decided to turn by podalic version, which they succeeded in doing, and all went well until after the breech and most of the body were delivered, when they found it impossible to extract the head which was arrested at the brim of the pelvis, and they could not bring it down, even by forceps. I examined as to the condition of the patient and found her in shock. By vaginal examination I ascertained that the chin had become extended from the chest. This we rectified and the delivery was, with difficulty, completed.

The shock of turning and the long delay proved fatal to the mother, who died a few hours afterwards, and the child was delivered dead, the cord having ceased to beat before the head was extracted. Now, had cephalic version been adopted, a very few minutes by my method would have sufficed to have rectified the mal-presentation and brought the head as the presenting part. There would have been no pressure on the cord and no delay to exhaust the patient; and it is reasonable to believe that both mother and child would have been saved. In such a case, even if it is not possible to extract the head, craniotomy would afford less risk to the mother, and Cesarean section or symphysiotomy would give a better chance to both mother and child.

In each of the above-mentioned cases the attending physicians were men of ability and recognized as such by the

profession. I give them simply to illustrate the fact that podalic version is sometimes very complicated and attended with great danger to both mother and child; and I argue that cephalic version is not attended with danger to either, and if you fail by the latter method, you will more than likely fail with the former.

It is also taught that the podalic version is indicated and gives better results than forceps when it becomes necessary to expedite delivery as in cases of eclampsia, placenta previa, accidental hemorrhage or pressure on the prolapsed cord, but I believe that in none of these conditions is it proper treatment to thrust the hand through a cervix that is not dilated or only partially so; neither do I advise attempting dilatation by nicking its circumference with a knife as some recommend.

Just as soon as the os uteri is sufficiently dilated to admit the hand to turn by podalic version (especially if the head has entered the inlet), just so soon can forceps be applied, and they are much more preferable, for in cases where the former method would be successful, the latter would be equally so, having the advantage of saving possible shock to the patient by turning. In turning by podalic version there is always uncertainty about easily delivering the after-coming head which may be disproportionately large and, even if craniotomy has to be performed, there may be difficulty and delay which had better be met at first, since nothing, in these cases, is gained by turning.

Even when the head has not entered and is high above the brim of the pelvis, it is better to rupture the membranes, bring down the head, adjust it if necessary, and apply forceps.

If time permitted, I could illustrate the successful treatment without podalic version in cases of eclampsia, accidental hemorrhage, and placenta praevia, and prolapse of the umbilical cord.

## The Journal of the Michigan State Medical Society

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### Editorial

There are some essential limitations to Opsonic Therapy. Medical science has experienced so many times the unfortunate results of the too eager acceptance and indiscriminate application of new theories and discoveries, that it might be considered almost superfluous now to urge upon the profession a proper skepticism regarding anything which is heralded as destined to bring about a revolution in the therapeutics of any class of diseases. It would seem, however, that the misnamed "opsonic therapy," which is really an improved method of administration of the "bacterial vaccines," controlled by quantitative estimation of the blood changes induced, is likely, owing to a one-sided presentation of its merits and an eagerness on the part of the profession to seize upon anything which promises aid in the treatment of the more grave and obstinate infections, to become the fad of the hour, and to cause great disappointment and suffer unmerited reproach, when later we find that its field is limited, that its irrational application may do great harm, and that it will not accomplish the impossible. This being true, a word of present warning may not be out of place.

The use of bacterial vaccines under control of opsonic index determinations depends on the theory of phagocytosis, and on the observation that the injection of dead bacteria or of certain cul-

ture products into the circulation incites a reaction on the part of the body cells, with increased production of certain substances normal to the blood, named by Wright "opsonins," which in some way so act upon the micro-organism as to make it more readily taken up by the leucocytes. These substances and this reaction are supposed to be specific for each species of micro-organism. When infection with a given organism occurs, the relative opsonic power, or "index" of the blood to that organism is lowered, and the body resistance by so much lessened. If the index be raised by proper vaccine injections, it is to be supposed that more bacteria are destroyed by the leucocytes and the chance of overcoming the infection so much increased. The theory is a pretty one, and in practice its application to the treatment of proper cases has brought about some brilliant results. It is essential, however, to determine what are proper cases, and here it is to be expected that some mistakes will be made. It does not seem reasonable to expect that the injection of a few million dead bacteria could have any special effect on the body resistance in a general infection, where already many times the number injected are circulating through the body and dying and disintegrating constantly. Moreover, if it were possible in a severe general infection, so to raise the blood's opsonic power as to cause the sudden destruction of a great number of bacteria, the result might well be disastrous, for undoubtedly many of the pathogenic bacteria form intracellular toxins which are liberated only on the death of the organism, and to throw into the circulation at a critical point in the disease an increased amount of such a toxin would be by no means desirable. Possibly, in the early stages of a blood infection, while the constitutional symptoms are still mild and the number of circulating bacteria comparatively few,



injections of vaccine might be of avail in aborting the infection, and on this point we may await further light; but so far as present knowledge goes, certainly the therapy is limited almost wholly to localized infections, and even in these it must have its restrictions. First of all, if the pathogenic organisms are to be destroyed by leucocytes, they must be so situated that blood and lymph have fair access to them. The bacilli in encysted tubercles or tuberculous joints, for instance, do not offer themselves very freely to absorption by the blood cells. Further, if a local infection be accompanied by such degree of toxic absorption as to give rise to severe constitutional symptoms, it is to be considered here also whether a sudden increased destruction of bacteria may not do harm rather than good. It seems to need saying also, that raising the opsonic index, (which after all is simply increasing the natural body resistance), should be rather an aid to other methods of treatment, than the only method employed. The injection of vaccines is not an efficient substitute for the evacuation of pus and the cleansing of infected surfaces, nor can their use be of any great benefit where such measures cannot be carried out.

These are some of the limitations to the use of bacterial vaccines which seem to be essential. Doubtless there is a wide field for their rational use, and eventually it is to be hoped that they will play a great part in the prophylaxis and treatment of infection—perhaps not in the present, crude form, but as easily and safely administered split products of the germ cell. At present the field is still largely unexplored, and on many essential points our knowledge is very vague. For this reason it is much to be regretted that there has been so great a tendency to rush into immediate therapeutic application of the ideas of Wright and Douglas, while so little at-

tention is being paid to the careful working out of the subject in the laboratory and on the normal individual.

Another phase of the question—the commercial side—has so far received but little attention, though it is very important. As yet most of the work has been done by enthusiastic laboratory workers for their own information (and incidentally, reputation), but not for pay. This condition certainly will not continue. The more experienced and careful men are agreed that it is not wise to undertake vaccine treatment without regular and frequent determination of the index. Furthermore it seems to be essential, in most infections, that the vaccine be made from the organism isolated from the particular case. The isolation of the organism, the preparation of the vaccine, and the determination of the index require a very considerable degree of technical skill and a well equipped laboratory. The processes are, moreover, so tedious that the handling of a few cases leaves almost no time for other work. These facts will, when the method is put upon a commercial basis, require the charging of high fees, and as most cases need treatment for a period of weeks, it would seem that the chief benefit of the new therapy is likely to be to the wealthy, on the one hand, and on the other, to the very poor, who resort to the free hospitals. It is, of course, earnestly to be desired and hoped that the laborious technic may be much simplified, but as yet there is no indication of how this is to be done. It is to be said also that the margin of error in the present technic is great; but this is probably not so important as some would have us think.

We would not have it thought that we are decrying a very brilliant and important work; but we believe that moderation and deliberation *now*, will result in a more just appreciation of its real value later.



**Physicians in the public eye** are few in every community. Those few are more likely to attain their publicity by newspaper paragraphs than by any sincere effort in behalf of the people. This first type of notoriety is discountenanced in many places,—it is to be hoped in the majority of places,—but there is a field wherein the physician ought to seek some prominence, namely, in the education of the laity concerning hygiene, first aid to the injured, and concerning patent medicines, quacks, and popular superstitions. The evils brought about by the three last-named factors have assumed gigantic proportions in this country, and the medical profession groans and complains at the consequent diminution of its prestige. But the very condition which the physician deplores is one that he has unconsciously abetted,—first, by prescribing patent medicines of unknown composition; and second, by supinely neglecting all efforts to ameliorate the state of affairs. It is true that the vigorous campaigning of recent years has resulted in some improvement;—for instance, the pure food law is a fact; the council on pharmacy is spreading abroad much-needed information; many states are legislating against quacks, and a few magazines and newspapers are barring obnoxious advertisements. But nearly all that has been accomplished for good has been by the efforts of a few. As yet no widespread action has been instigated along the lines that might strike at the root of the matter.

The particular line of action referred to will bring the physician into public notice. It will consist in the education of the laity; truth must be taught, else it will never be learned, and it must be taught with such unanimity and fearlessness as to carry conviction. Why, then, should not the medical profession write for lay publications? Why should they not address public gatherings whenever the chance offers? Why should

they not make opportunity to teach certain truths, through the medium of churches, schools, men's and women's clubs, social settlements, hospitals, medical schools, and other avenues? Behold the pioneer work instituted in Boston, where a public course of lectures is being given from the Harvard Medical School, by members of its teaching force, upon subjects with which every layman should be conversant! This was described in the March issue with some detail. It is a fine idea, but it has been criticised as being a means of self-advertisement for the lecturers! This criticism is the essence of that factor which has so long held down the American physician. It is a bondage of ethics, some links of which are too antique to figure in a modern chain. If a physician dispenses good and sound intelligence before a mother's club, some jealous brother brands him as a schemer; if a physician discourses before a Young Men's Christian Association upon a vital topic of hygiene, a cavilling colleague sneers at him; if an energetic young doctor organizes a medical charity in his church, or talks to the members of the Sunday school on "health and exercise," less energetic confreres credit him with ulterior motives. Well, granted he does benefit himself,—and granted that he has that object in view,—is it unethical, and is the good he accomplishes any the less worthy?

A vast deal of good could be done if the physician would lay aside his old-fashioned garment of modesty, and if his brother would hold his carping tongue, and both unite in a systematic effort at setting certain wholesome knowledge before people who need it. Let him not court that notoriety that proceeds from exaggerated paragraphs in daily papers, to the effect that "Dr. So-and-So performed a most marvelous surgical feat yesterday; he gave little Johnny Jones a new arm, transplanted from a cat;" or

"Dr. Such-and-Such has discovered a new method of anesthesia by the injection of thistleine; surgery revolutionized," etc., ad nauseam. This is not only uninformative, but it usually is the same kind of insidious misrepresentation that Dr. So-and-So methodistically decries in the proprietary drug manufacturer.

The kind of teaching we would see, is that which inculcates in the public mind an appreciation of the fakir, a realization of the incurability of certain diseases, and the curability of others, a true conception of venereal disease and of sexual hygiene, a correct knowledge of the effect of drugs and the greater usefulness of non-medicinal therapeutics, a belief in right living for the sake of the health and long life that it brings, and other matters upon which the public mind has either no knowledge or wrong knowledge.



**The Medical Department of the University of Michigan** has been in existence for fifty-seven years, having been opened for students in 1850. It is exceeded in age only by the Literary Department, and is one of the oldest professional schools in the west. At the time of its foundation, the college year consisted of but six months, and no definite number of years were required. In 1880 the course was made three years, and in 1890 lengthened to four years, the school being one of the first to adopt the latter requirement. In the early years there was but one building—old medical building—and this served for lecture rooms, dissecting room and surgical work. The present medical building was opened in 1902.

The University Hospital first occupied the present dental building, a dwelling being converted for hospital use. There are now six buildings in the group.

The Faculty of the Medical Depart-

ment consists of eighty professors, instructors and paid assistants, besides a large number of nurses and student members of various staffs. The latest summary shows 369 students enrolled in this department.



**-The Program of the Saginaw Meeting** will be found in this issue and should be carefully read by every member of the society. We are fortunate in having secured for the principal address, Dr. James B. Herrick, the prominent internist of Chicago. Doctor Herrick has chosen a subject—Methods of Diagnosis—which will be interesting and instructive to every physician, regardless of the lines along which he works. This address will be given before the general session on Thursday morning, May 16th, at nine o'clock. Immediately thereafter the general session will adjourn, giving the medical and surgical sections a two-hour session. The gynecological section will hold no morning session.

Another feature of the program will be a symposium on the Disorders of Menstruation, which will take place before the gynecological section on Wednesday afternoon, and should prove very helpful, as there is no class of cases more difficult to understand and successfully treat. The miscellaneous papers in all of the sections comprise a wide variety of subjects, and the newer topics in medicine will receive due attention. A particular effort has been made to impress authors of papers to make them short and concise, so that ample time may be left for discussions.

Liberal provision has been made by the local committees for the entertainment of the ladies, and it is hoped that many may be in attendance. Wednesday evening will be devoted to the social side, and an entertainment followed by dancing has been arranged.

The House of Delegates will meet for





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Charles B. Stockwell  
President 1906-1907

the first session on Tuesday evening, May 14th, at eight o'clock. Every county should be represented either by its delegate or alternate, and the delegates are urged to come prepared to present any ideas which may be for the good of the society. In many respects this first session will be the most important, so that it is essential that all delegates be present on Tuesday evening.

Arrangements have been made with the Michigan Passenger Association whereby reduced railway rates for the meeting have been obtained. There are always a few members in attendance who fail to understand the method of obtaining the reduced fare. When starting from home a full fare is paid and a certificate obtained. This certificate is to be left at the Registration office in the Masonic Temple for certification, a fee of twenty-five cents being paid. Before starting on the return trip the certificate must be claimed and when presented at the railway ticket office in Saginaw it will entitle the holder to a return ticket at one-third the regular fare. These certificates may be obtained by members and non-members alike.



#### CHARLES B. STOCKWELL, M. D.,

PRESIDENT, MICHIGAN STATE MEDICAL  
SOCIETY, 1906-'07.

It is a pleasure to comply with a request to write a short sketch of our President, but I wish to say at the beginning that if an impartial history of this genial gentleman and cultured physician is expected, I can hardly qualify as historian, for I confess to being very partial to him. For more than a quarter of a century we have been friends in the very best sense of that word, have labored together in our societies, local, district and state, have together striven for the lives of our patients in many a hard fought battle, have ministered to each

other when, in that warfare, we, first my friend and then myself, were stricken down by the poison shafts of the enemy. Many a mile of muddy road has been shortened by swapping yarns, and many a long night rendered less tedious by genial conversation. When the shadows of great sorrows have shut out the light from us, still we have found comfort in the old companionship and the new bonds of sympathy.

Doctor Stockwell comes of good New England stock, but was saved from the provincial egotism of the descendants of the "Pilgrim fathers" by having had the good sense to be born in the pleasant and quiet Quaker settlement of Friendsville, Pa., in 1857.

The Doctor likes to tell a story of his mother's father when, as a young man at the "general training," the captain called on him to open the exercises with prayer. He was not in love with the militia general, and so he prayed, "O Lord, we read in Thy word that Thou winkest at our ignorance, but, O Lord, if Thou shouldst wink at the ignorance of our General, thou knowest, O Lord, it would keep Thee winking all the time."

Those who know C. B. Stockwell well may have their faith in mental heredity strengthened by this recital. He is not one of those who lose half the fun of living by being unable to enjoy a laugh when it is on themselves.

Dr. C. M. Stockwell, the father, was educated at Berkshire Medical College, Massachusetts, when the course consisted of two years of four months each. However, he was a student all his long life and kept fully up to the times. He practiced in Port Huron from 1851 to 1894, and died in December, 1899. He was elected first president of the re-organized State Medical Society in 1866, and just forty years later his son was chosen president of the same society.

Dr. C. B. Stockwell showed a remark-

able precocity by coming to Port Huron during the first year of his life. He attended the public schools and was one of the first graduates of our High School. He entered Olivet College in 1869 and graduated in 1873. Like so many men found in all walks of life, he became a pro tempore pedagogue and taught in the Port Huron High School for two years. He then reformed and has never taught anything more dangerous than Sunday school lessons since.

Having become fascinated by the ease with which fame and fortune are achieved by the medical man, our friend entered the Harvard Medical College in 1875 and was graduated therefrom in 1878. He then took a postgraduate course on the eye, ear, nose and throat, and in 1879 began practice in Port Huron in partnership with his father.

In 1884 he married Mary A. Gross, a beautiful and accomplished young lady of Boston, whom after twenty-two years of happy married life, he recently lost by death.

In 1888, Dr. and Mrs. Stockwell spent much time in Europe, where he visited the most famous medical centers and took such special courses as he felt would be of advantage to him.

He has become the senior practicing physician of our city and enjoys the respect and confidence of his colleagues in an unusual degree, and is honored and respected by all for his blameless life, his genial manner, his sympathy and co-operation with all works of benevolence, and for his sturdy, steadfast Christian character.

The Doctor is a reader of wide range, with a critical yet catholic taste, and loves his favorite authors as he loves his friends, with a whole-heartedness that sees all their virtues with a clear vision and makes generous deductions from their faults.

Besides his solid learning and liberal literary culture, he might have made his

mark in music, had he devoted himself to it. If you want a real treat, sometime when his arduous duties as president of the State Society are over, ask him to sing some of the old Scotch songs. I know he'll forgive me for this, as he has done so before.

If all those who bear the honorable title of Doctor of Medicine held themselves to such high ideals as Doctor Stockwell, and carried into their lives his spirit of honor, purity and unyielding adherence to principle, our profession would deserve and receive the highest honor that the lives of its best have merited, and which the practices of the worst have kept from it.

The Doctor has held many offices of trust and honor in the medical societies, local and state, as President of our County Society, three times President of the Northeastern District Society, delegate to the American Medical Association in 1904 and 1905, and last year was unanimously elected President of the Michigan State Medical Society. May his shadow never grow less.

MORTIMER WILLSON.

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## Book Notices

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**The Technic of Operations Upon the Intestines and Stomach.**—By Alfred H. Gould, M. D., of Boston, Massachusetts. Octavo volume, containing 190 beautiful original illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, \$5 net; half morocco, \$6 net.

Gould, one of the younger Boston surgeons, undertook a series of experiments upon animals to determine the simplest and most effective methods of operating upon the stomach and intestines. During the course of this experimental study, which extended over three years, all of the better known operations were repeatedly done on animals, and the methods checked up on the cadaver and in some instances also upon the living human subject. The operations on the animals were reviewed post mortem, after varying lengths of time, and much valuable information thus obtained. This book resulted and in it are reviewed certain standard operations.



The first chapter reviews in a masterful way the repair of intestinal wounds and is splendidly illustrated by drawings from histologic sections. Thirty pages are then given up to a consideration of suture materials, needles, tying of knots, sutures, and clamps. In Chapter III, the anatomy of the intestines is given; especially to be commended are the excellent sections on intestinal localization, for the most part a review of the work of Monks. In Chapter IV, the technic of enterectomy, end-to-end anastomosis, formation of a blind end, lateral anastomosis, end-to-side anastomosis and colostomy is fully given. Similarly, in Chapter V, are given the standard operations upon the stomach.

The illustrations are beautifully clear, abundant and so judiciously chosen that it is scarcely necessary to read the text, in order to review the methods of procedure. The text is unusually clear and concise. No superfluous words are used and there is a most pleasing simplicity in diction throughout. Moreover the publishers have done their work in a manner most satisfactory. It may honestly be said to be the best English monograph on the subject covered, and should be in the library of every surgeon.

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**A Text-Book of the Practice of Medicine.**—For Students and Practitioners. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo; 1,120 pages, with 131 engravings and 11 full-page plates in colors and monochrome. Second edition, revised and enlarged. Cloth, \$5 net; leather, \$6 net; half morocco, \$6.50 net. Lea Brothers & Co., Philadelphia. 1907.

Professor Hare has had an uncommonly large experience in the teaching of students and the preparation of text books for them. His first book, on therapeutics, at once became a standard, as did his second, on diagnosis. In 1905, his Practice of Medicine appeared, and became popular with both students and physicians because it is eminently practical. From his long experience, Hare recognizes the needs of the every day worker and in this book, has collected and arranged facts which are essential, dropping what is impracticable or unimportant. He is a clear thinker and clear thinking makes clear writing.

The first edition was twice reprinted in very large numbers, and it is now thoroughly revised. While there has been some collaboration in the sections dealing with tropical diseases, the book gives primarily the views of one man, so that the

reader is not left to choose for himself from a maze of conflicting opinions. The arrangement is good and the index complete, so that the volume is an excellent one for ready reference. That it is authoritative cannot be denied. Combining with these qualities, excellent mechanical qualities, in the way of paper, type, and binding, it is to be highly recommended.

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**Medical Diagnosis.**—A Manual for Students and Practitioners. By Charles Lyman Greene, Professor of Medicine in the University of Minnesota. 683 pages, 7 colored plates and 230 illustrations. Price, \$3.50. Philadelphia: P. Blakiston's Son & Co. 1907.

This is a companion volume to Hughes' Compend of the Practice of Medicine and Thayer's Manual of Pathology.

In conception and size, this book is midway between the compend and the elaborate large work on medical diagnosis, and represents the type of book most generally useful for student and busy physician. The author writes clearly and concisely, and has thus been able to cover much ground in a comparatively short space.

After 80 pages on the outward signs of disease and the analysis of certain common symptoms, the diseases of the various "systems" are taken up *seriatim*. The illustrations are small, but clear and wisely chosen.

Running headlines and marginal notes, together with the use of bold face type and italics, make ready reference easy. Indeed one can review his knowledge very quickly by the use of these notes.

The book is of convenient size and attractively bound in flexible leather. It covers the field intended and is to be recommended.

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**The New Hygiene.**—By Eli Metchnikoff, with an introduction by E. Ray Lankester. 4½x6½ in.; 104 pages. Cloth, \$1. W. T. Keener & Co., Chicago. 1906.

This attractive little volume comprises the three Harben lectures, recently delivered by Metchnikoff. In the introduction, Lankester says: "It is a wonderful and exceptional thing, for we have the statement of one of the greatest investigators of disease, in the fullness and ripeness of his work and knowledge, placing before the general reader some of the latest results in regard to infection, the part played by the infective bacteria, the part played by the eater-cells or phagocytes of man when attacked by such germs, and again

telling us as to the danger to civilized mankind of allowing parasitic worms to harbor in his alimentary canal. In the third lecture, some of the latest knowledge of the terrible and preventable malady known as syphilis is set forth in a spirit at once truly scientific and truly philanthropic."

The first lecture, entitled "Hygiene of the Tissues," contains some interesting points on "bacilli carriers" (immune persons who harbor infection and transmit it to others), on immunity and on phagocytosis.

The second essay deals with the alimentary canal with particular emphasis on intestinal parasites. The author holds that parasites, especially the oxyuris, are a frequent cause of appendicitis. Few surgeons in this country would subscribe to this view.

The third chapter is devoted to a discussion of the "Hygienic Measures Against Syphilis," and contains much of interest on inoculation, and methods of prevention.

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**An Epitome of Diseases of the Nose and Throat.**—By J. B. Ferguson, M. D., of the New York Post-Graduate Medical School. 12mo, 243 (pages, with 114 engravings. Cloth, \$1 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1907. (Lea's Series of Medical Epitomes. Edited by Victor C. Pedersen, M. D., New York.)

A little compendium well suited to the use of both student and general practitioner, giving in concise language the essential facts relating to the various diseased conditions of the nose and throat, from the simpler to the more complicated, with the treatment of each.

The first chapter gives a few general considerations relative to the attitude of the nose and throat specialist toward his patient, and also mentions some of the essentials in the way of instruments and fixtures.

A portion of a chapter is devoted to the anatomy and physiology of the upper respiratory tract, and suggestions here and there given relative to the technic of treatment.

Special instruments and methods of treatment are mentioned in the discussion of the treatment of the various pathologic conditions of the nose and throat.

At the end of each chapter is to be found a series of questions bearing upon the text matter of that chapter, the object being to afford a quick method of review.

This little work comprises in all 236 pages and is admirable for its intended purpose.

The only unfavorable criticism to be made is that too often preparations of the United States Pharmacopoeia are set aside for proprietary medicines.

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**Progressive Medicine, Vol. 1, March, 1907.**—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 280 pages, with illustrations. Per annum, in four cloth-bound volumes, \$9; in paper binding, \$6. Lea Brothers & Co., Publishers, Philadelphia and New York.

We consider *Progressive Medicine* the best of the so-called "year books." It appears quarterly, but each number deals with different departments of medicine and surgery, so that the progress of any one department is reviewed once each year.

The March issue (Vol. I. of the 1907 series) reviews the best literature of the past year in the following departments: Surgery of the Head, Neck and Thorax, reviewed by Frazier; Infectious Diseases, reviewed by Preble; Diseases of Children, by Crandall; Rhinology and Laryngology, by Kyle; and Otology, by Randall.

A comprehensive review of these reviews is impossible, but a few interesting comments of the reviewers may be cited. In discussing the part taken by insects in the transmission of diseases, Preble says: "If the Northern health officers were to make as vigorous a campaign against the house-fly, the bed-bug, and the flea, as the Southern officers have against the mosquito, people would be freer from these diseases and, in addition, would be more comfortable."

Under Diseases of Children, Crandall comments: "A troublesome obstacle that the pediatrician encounters today is the general ignorance and helplessness of the young mother. She may be skilled in letters, arts, and sciences, as a college graduate, but may know little or nothing regarding the essential hygiene of early life."

Randall, speaking of the Oto-projectoscope, says: "Under the name oto-projectoscope, Goldstein describes his apparatus for throwing upon a screen the enlarged image of the drumhead and meatus, and claims full success in thus placing before a group of students all the details obtainable by the individual in the usual examination. If others can obtain such results, the innovation bids fair to secure general utilization."

**International Clinics.**—Vol. 1, 17th Series, 1907. 318 pages, 29 plates and figures, 3 of which are in colors. Cloth, \$2. Philadelphia: J. B. Lippincott Company. 1907.

With the new series, the International Clinics has a new editor, the editorial work having passed from Dr. A. O. J. Kelley to Dr. W. T. Longcope. All who know the new editor will agree that his selection is a sufficient guarantee that the high standard of the Clinics will be maintained.

This volume is an excellent one. All the papers are good; several are especially important, namely, On the Psychic Treatment of Some of the Functional Neuroses, by Barker of Baltimore; The Clinical Diagnosis of Enlargement of the Thymus by Warthin of Ann Arbor; On the Opening of the Thorax Without Pneumo-Thorax, by Tuffier of Paris.

Stevens reviews the progress of treatment during 1906, Edsall the progress of medicine, and Bloodgood the progress of surgery.

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**Woman in Girlhood, Wifehood, Motherhood.**—By Myer Solis-Cohen, A. B., M. D., Instructor in Physical Diagnosis, University of Pennsylvania. Illustrated. The John C. Winston Company, Publishers. Chicago, Philadelphia.

The author has produced a reliable book covering the subjects indicated. It is intended to be placed in the hands of the patient and the advice given may safely be recommended.

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The December, 1906, number of the *Annals of Otology, Rhinology and Laryngology* is dedicated as a festschrift number to Prof. Dr. B. Fraenkel, to celebrate the completion of seventy years of his life. It contains, beside the dedication, a bibliography of Fraenkel's writings, and an article devoted to the part he has played in the advancement of laryngology. The number contains in all fifty articles, embracing practically all that is latest and best in the progress of laryngology, from the pens of not only American authors, but of some of the best known writers of Europe. It is one of the most notable achievements in the publication of current laryngological literature.

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The Medical Mirror and the Medica Era, both published in St. Louis have been consolidated under the title of the Medical Era,

## County Society News

### FIRST COUNCILOR DISTRICT.

The third annual meeting of the First Councilor District Medical Society (including Lenawee, Macomb, Monroe, Oakland, Washtenaw, Wayne) was held in Detroit, Thursday, March 28, at the Hotel Cadillac. The program was as follows:

2:30 P. M.

#### PAPERS.

"The Advantages of Laparotomy over Tapping in Ascites"—George Dock, M. D., Ann Arbor.

"Importance of Complete Extirpation in Tonsil Operation"—E. T. Morden, M. D., Adrian.

"Nine Cases of Ovarian Fibromata, with Especial Reference to Their Association with Ascites."—Reuben Peterson, M. D., Ann Arbor.

"Empyema"—R. Y. Ferguson, M. D., Pontiac.

Dr. W. E. Blodgett of Detroit presented a case of chronic strain of the sacro-iliac joint, treated by a plaster of Paris jacket.

6.00 P. M.

Banquet.

#### TOASTS.

Toastmaster, Dr. David Inglis.

"The General Practitioner"—Dr. A. W. Chase, Adrian.

"The Doctor's Price"—Dr. J. D. Riker, Pontiac.

"The Relation of the Psychopathic Hospital to the General Practitioner"—Dr. A. M. Barret, Ann Arbor.

"The Specialist"—Dr. V. C. Vaughan, Jr., Detroit.

#### PAPERS.

"The Opsonins and Bacterial Vaccines." (a) Theory—E. M. Houghton, M. D., Detroit.

"The Opsonins and Bacterial Vaccines." (b) Technic, with Lantern Slide Demonstration—E. C. L. Miller, M. D., Detroit.

The program was carried out in full, with the exception that Dr. Peterson did not present his paper, because he could not attend the meeting. Both the afternoon and evening sessions attracted a large number of physicians, and the discussion given to the papers was instructive and wholesome. No business was transacted, so that the



meeting was purely of scientific and social benefit, and was pronounced by all a great success.

#### GRAND TRAVERSE.

At a recent meeting of the County Society a paper was read on "Use of the Ophthalmoscope," by Dr. F. J. MacNett, an abstract of which follows:

The use of the ophthalmoscope will not only reveal to us the various pathological conditions that may exist in any part of the dioptric media or at the fundus, but it will also give us a key to the exact condition of the refraction, and enable us to estimate the total error in the different varieties.

Before the days of the ophthalmoscope the diseases of the interior of the eye were totally unknown, and all deficiency of the sight, no matter what the cause or pathologic condition, received the name of "amblyopia" or "amaurosis"—words that were used without any practical meaning whatever. The importance of a perfect understanding of the use of the ophthalmoscope in all cases of refractive error should be fully appreciated, \* \* \* and how important it is in diagnosing all diseases of the dioptric media and fundus.

\* \* \* \* When we look at an eye, the pupil appears perfectly black—we cannot see beyond the iris, and yet we know that the lens and vitreous beyond are perfectly transparent. We cannot see the entrance of the optic nerve, the blood-vessels proceeding from it, nor the retina, \* \* \* because we cannot place the eye in the track of the return rays. It is by the use of the ophthalmoscope that we can place the eye in a position to intercept those return rays as they pass outward. The pupil of the examined eye appears of an orange red color, while opacities that may obstruct the return rays at any point will appear to us as black spots in the pupillary space, whether situated in the cornea, the lens, or in the vitreous. \* \* \* In any examination look first for corneal opacities, then pupillary adhesions and pigment spots, then successively for opacities and dislocations of the lens, opacities of the vitreous, foreign bodies, growths, injuries to the retina and choroid. \* \* \* Of the many diseases of the retina I will mention but three. First, hemorrhage—the appearance is that of a dark red mass or area in the level of retina; if in the superficial layer, which is that of

the nerve fibres, its shape is largely due to the ease with which it spreads in the direction of these fibers, and its margins have a gradually shading or feather edge; such hemorrhages are often described as flame-shaped; if the hemorrhage is in the deep layers it has a sharper and rounder boundary. Retinal hemorrhages undergo gradual absorption, leaving a black spot of accumulated pigment, or an area of choroidal atrophy. The appearance of albuminuric retinitis is of small patches of exudation or degeneration, which show a brilliant white. In the region of the macula, where they are apt to appear early, they are more or less arranged in lines radiating from the fovea. Large masses of exudation have a pale, dirty brown color. There are also hemorrhages, often multiple small ones and sometimes black specks, marking the site of former hemorrhages. The retinal vessels show signs of disease—sometimes aneurismal dilatations, sometimes white opacity of their coats.

In leukemic retinitis exudation is more general, giving rise to large diffuse gray opacities. Hemorrhages are numerous and often large. The vessels are all pale and the arteries small, but the veins appear unusually broad, with a wide light streak upon them. This widening and pallor of the veins may be found in any severe anemia. \* \* \* \* The ophthalmoscopic appearance of plastic choroiditis is a blurring, due to swelling, which hides the details of the choroid that are normally visible. This may be darker red than the normal fundus, from hyperemia or hemorrhage, or of a light yellowish color, from serous or plastic exudation. Later, changes may appear in the pigment layer. The exudate may simply be absorbed, or, as more commonly happens, it is absorbed in some places, and in others it is heaped up in masses of a brown or black color, that form a very striking appearance. At the same time the other tissues of the choroid atrophy, the smaller and often the larger vessels disappear entirely, and over considerable areas nothing is to be seen but the glaring white sclera, with which is fused the connective tissue remains of the choroid. Frequently the different parts of the same eye exhibit all the different stages of the process simultaneously. After it has run its course the results of the inflammation continue visible in the fundus throughout life. \* \* \* \*

In optic neuritis the small vessels of the disc are dilated, so that more of them are visible, and a reddish hue is assumed. This is as pronounced in mild cases as in the severe, for in the latter

the excessive edema masks the vessels. The retinal arteries are diminished in size, the veins are swollen and tortuous. The outlines of the disc are hidden by the edematous swelling, and by the extent of this swelling is measured by determining the refraction of its most prominent or hyperopic portion, and the refraction of a neighboring unswollen part of the fundus. Generally this swelling, and often the neighboring fundus, presents small hemorrhages. \* \* \* \* \*

In glaucoma the media may be so hazy as to prevent any clear view of the fundus, but the most constant sign of glaucoma, except in very recent cases, is a cupping of the optic disc. The glaucoma cup differs from the physiological cup in extending the whole width of the disc, in having abrupt and overhanging sides. As the retinal vessels pass down the sides of the cup they disappear, so that the part at the bottom of the cup seems disconnected with the part in the retina. Pulsation of the retinal arteries, either spontaneous or producible by slight pressure on the eye-balls, is another evidence of high tension. It is very noticeable where the artery bends over the edge of the cup.

\* \* \* \* \*

Dr. MacNett then demonstrated some clinical cases.

MYRTELLE M. CANAVAN, *Sec'y.*

#### INGHAM.

The regular meeting of Ingham County Medical Society was held in Lansing March 14, 1907. In the absence of President Wade, Vice-President Dr. R. E. Miller presided.

The society endorsed the Manistee county amendment to the bill for registration of nurses, which substitutes five physicians in place of five nurses on the state board. The clinics on heart lesions, in charge of Dr. R. E. Miller, presented four typical cases, and one case without any lesion. The cases were carefully examined, after which the leader gave each physician an opportunity to state his findings and express opinions upon treatment. The clinic was interesting and profitable. Dr. C. S. Barber presented a unique specimen of uterine fibroid tumors, the result of an operation a few days previous. The specimen contained one intra-uterine fibroid, several submucous tumors, and one large extra-uterine fibroid. In all there were eighteen growths comprising the three varieties of uterine tumors in one speci-

men. At our next meeting in May, tuberculosis will be considered, in charge of Dr. J. W. Hagadorn of Lansing. Physicians of Ingham County are requested to notify Dr. Hagadorn of any cases of tuberculosis that come to this clinic.

L. ANNA BALLARD, *Sec'y.*

#### KALAMAZOO ACADEMY.

The regular monthly meeting of the Kalamazoo Academy of Medicine was held at its rooms April 9th, 1907.

The program was opened by Dr. C. E. Boys with a paper on "Some Historical and Practical Points on General Anaesthesia." The discussion was opened by Dr. D. H. Eaton. Then followed a "Report on New Work," by Dr. W. A. Snyder. Dr. Geo. Dock, of Ann Arbor, read a paper on the "Early Diagnosis of Tuberculosis," discussed by Dr. Collins H. Johnston, of Grand Rapids, and others.

A public meeting to consider the Prevention of Tuberculosis was held in the evening of the same day, at the Methodist church, under the auspices of the Committee on the Study and Prevention of Tuberculosis. The committee is composed of Drs. J. B. Jackson, C. E. Boys and D. H. Eaton. Dr. Collins H. Johnston gave a most interesting talk on "Tuberculosis," its causes and curability and illustrated with many lantern slides. Dr. Dock's paper dealt more with the prevention of tuberculosis. The meeting was well attended and both papers were well received.

The Academy has been holding, besides its regular monthly meetings, a weekly special meeting for the purpose of demonstrating pathological material, reporting interesting cases, dissecting, etc. These meetings have been in the main well attended.

During the past few months, papers have been read by Dr. Aldred S. Warthin, of Ann Arbor; Drs. David Inglis and W. P. Manton, of Detroit, and Drs. A. M. Church and Frank Wall, of Chicago.

Members of the Academy now number eighty-seven.

President, Dr. W. A. Stone; first vice-president, Dr. P. T. Butler; second vice-president, Dr. G. F. Young; third vice-president, Dr. B. A. Shepard; secretary and treasurer, Dr. G. F. Inch; censors, Drs. A. Hochstein, F. J. Welsh, H. B. Osborne, O. H. Clark, G. D. Carnes and R. E. Balch.

G. F. INCH, *Sec'y.*

## MECOSTA.

At the annual meeting of the Mecosta County Medical Society, the following officers were elected: President, Dr. W. J. O'Hara, Big Rapids; first vice-president, Dr. Gordon McAllister, Stanwood; second vice-president, Dr. Wm. Kuhn, White Cloud; secretary-treasurer, Dr. G. H. Lynch, Big Rapids; delegate, Dr. Joseph McNeece, Morley; alternate, Dr. Gordon McAllister, Stanwood.

G. H. LYNCH, *Sec'y.*

secretary was instructed to so notify our representative at Lansing. Dr. Oosting states that Dr. Fuller, of Grand Rapids, had volunteered to come before our society and give an address on "The Origin of the Mind." Secretary was instructed to communicate with Dr. Fuller and ask the date. Dr. Oosting read a paper on "Puerperal Infection," which was generally discussed. Refreshments and adjournment.

V. A. CHAPMAN, *Sec'y.*

## MUSKEGON-OCEANA.

The regular meeting of the Muskegon-Oceana Counties Medical Society was held at the home of Dr. Oosting, evening of March 29, 1907. Meeting called to order by Pres. Denslow. Members present: Drs. Denslow, Oosting, Williams, Olson, Hartman, Bloch, Garber, Cooper, Marshall and Chapman. Minutes of previous meeting read and approved. Reading of communication from Dr. Dock stating that he could not appear before society before June; reading of communication from Michigan State Medical Society regarding amendment to Art. 8, Sec. 2 of the Constitution namely: That Art. 8, Sec. 2 of the Constitution be so changed as to read: "The council shall be elected for terms of six years each, these terms being so divided that four councilors shall be chosen each alternate year." This amendment was unanimously carried. Reading of communication from Washtenaw County Medical Society regarding the resolution asking for compensation to the physician or other person reporting births, namely: "To ask our state legislature to amend the present law relative to the registration and return of births so that for every and each complete return, the physician or other person so reporting shall receive the nominal fee of fifty cents." This resolution was unanimously commended and the secretary instructed to write the representative of Muskegon county in the legislature to support such a measure. Reading of communication from Manistee County Medical Society regarding amendment to the Lord Bill (House Bill No. 89, File No. 12) regarding board of examination for registration of nurses. This resolution provided for an amendment to the effect that the examination board be constituted solely of physicians in some manner similar to the Medical Examining Board as now established in this state. This amendment was commended and

## News

Dr. Nelson R. Gilbert, of Bay City, has been reappointed for the sixth time to the board of control of the Home of Epileptics and Feeble-Minded at Lapeer.

Dr. E. L. Shurley, of Detroit, has returned from a several months' trip in Europe.

Dr. Ellsworth Orton has been elected mayor of Pontiac, winning against Dr. H. G. Guillot, who had served five times as mayor.

The insane patients at Eloise are much in excess of the normal accommodations, and it is becoming a serious problem how to care for them.

Dr. W. H. Sawyer, of Hillsdale, has had a severe septic process in his arm, for which he has been in Harper Hospital, Detroit.

Dr. E. A. Chapoton has been appointed to the Board of Fire Commissioners of Detroit.

Dr. George R. Herkimer has been elected mayor of Dowagiac.

The American Anti-Tuberculosis League will hold its next meeting at Atlantic City, June 1 to 4, 1907. The league comprises many smaller leagues, organized in various states, and is prosecuting a worthy work under the present presidency of Dr. George Brown, of Atlanta, Ga.

Dr. Louise Rosenthal Thompson, after a successful year in Detroit, is again located in Traverse City.

Dr. C. A. Clark, formerly of Harbor Springs, has opened offices in Traverse City.

Dr. M. M. Canavan, of Traverse City, is spending the month of May in the laboratory of the psychopathic ward of the University Hospital, Ann Arbor.



## Marriages

Kenneth Noble, M. D., and Mrs. Bertha Z. Schuenicht, both of Milan, were married at Monroe, on February 28.

Edward G. Martin, M. D., of Detroit, and Miss Helen M. Fraser, of Petrolea, Ont., were married at the latter place on March 27.

Frederick N. Blanchard, M. D., and Miss Alice Osgood, both of Detroit, were married at the home of the bride's parents, on April 10.

J. Frank Maguire, M. D., and Mrs. Ella Churchill, both of Alpena, were married on April 1.

Angus McLean, M. D., and Mrs. Rebecca Scotten Day, both of Detroit, were married in Atlantic City on April 8.

## Deaths

William B. Thomas, M. D., of Ionia, died at his home, March 5, aged 75. Dr. Thomas was graduated from the University of Buffalo Medical Department in 1857, was a veteran of the civil war, and had been in practice for 50 years. His death terminated an invalidism of five years, resulting from a fall.

John G. Reinberg, M. D., of McBain, died at his home February 22, after an illness of two weeks, aged 62.

George E. Sanford, M. D., died suddenly at his home in Saline, from heart disease, March 18, aged 56. Dr. Sanford graduated from the University of Michigan Medical Department in 1875.

William McCallum, M. D., who practised for many years in Gladstone, died on March 28 at the Northwestern Hospital, Minneapolis, Minn., aged 52.

Henry P. Evarts, M. D., died at his home in Grand Rapids, on March 31, from laryngitis, aged 62.

Stanley A. DuPaul, M. D., died at his home in Carleton, on April 7, aged 48. He was a graduate of the Detroit College of Medicine in 1885.

The Social Conference Club of Detroit held a meeting March 19, at the Board of Commerce rooms, for the discussion of the "Hospital Needs of Detroit." Dr. T. B. Cooley presided. Dr. T. A. McGraw, Dr. Guy Kiefer, Dr. P. M. Hickey and Dr. J. Flintermann contributed to the program.

The Detroit Medical Journal has purchased Leonard's Illustrated Medical Journal and the later has suspended publication.

## ALUMNI CLINIC

Detroit College of Medicine.

The Annual Alumni Clinic of the Detroit College of Medicine will be held this year from May 22d to May 30th, inclusive. The program as arranged by the committee is the most elaborate of any yet attempted, and promises a clinic of the greatest interest and value. The clinic opens on the morning of May 22, when Dr. F. B. Turck, of Chicago, will hold a clinic on "Diseases of the Stomach." On the evening of the 22nd, Dr. Turck will again talk and illustrate his lecture with lantern slide pictures.

On May 23, Dr. A. Jacobi, of New York, will conduct a clinic on Pediatrics. On the 24th, Dr. Fred Forchheimer, of Cincinnati, will conduct a clinic on the subject, "Physical Treatment of Chronic Heart Disease." Saturday, May 25, Dr. Chevalier Jackson, of Pittsburg, will hold a clinic on "Diseases of the Nose and Throat." May 28, Dr. C. A. L. Reed, of Cincinnati, will hold a gynecological clinic, and on May 29, Dr. Hugh T. Patrick, of Chicago, a clinic on "Nervous Diseases."

In addition, there will be many medical and surgical clinics by local physicians, and every hour will be most profitably filled. The clinic is free and all regular physicians, regardless of location, are most welcome at any and all times.

**Instruction in Materia Medica.**—W. S. Fullerton, St. Paul, in the *Journal of the Minnesota State Medical Association*, says that if surgery were taught in the dilettante way that materia medica is in too many of our medical colleges, surgical cases would be to a great extent in the hands of the instrument makers, who would be instructing the surgeon through their commercial travelers, as the medicine houses are attempting to do with the general practitioner.

There are about 250,000 doctors in the world. Half of them are in the United States. In England there are 78 and in France 51 to the 100,000, but in this country there are about 175, or one to every 620 people. In London there are 128, in Paris 111, in New York City 74, and in Constantinople 35 per hundred thousand inhabitants.

# PROGRAM

OF THE

# 42nd Annual Meeting

OF THE

## Michigan State Medical Society

Masonic Temple Saginaw, May 15 and 16

### THE COUNCIL.

Chairman—C. B. Burr, Flint.

Secretary—W. H. Haughey, Battle Creek.

*Tuesday, May 14th, 2 P. M.*

*Wednesday, May 15th, 4 P. M.*

*Thursday, May 16th, 3 P. M.*

### HOUSE OF DELEGATES.

#### MASONIC TEMPLE.

President—C. B. STOCKWELL, Port Huron.

Secretary—B. R. SCHENCK, Detroit.

BY-LAWS—CHAPTER IV, Section 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate and one alternate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate and one alternate.

#### First Session, Tuesday, May 14th.

8 P. M.

1. Call to order by the President.
2. Roll Call.
3. Reading of Minutes of the last Annual Meeting.
4. Report of the Council.  
C. B. BURR, Flint, Chairman.

5. Report of Committee on Legislation and Public policy.  
W. H. SAWYER, Hillsdale, Chairman.

6. Report of National Legislative Council, A. M. A.

FLEMMING CARROW, Detroit, Michigan Member.

7. Report of Committee to Encourage the Systematic Examination of the Eyes and Ears of School Children Throughout the State.  
WALTER R. PARKER, Detroit, Chairman.

8. Miscellaneous Business.

(a) Election of Committee on Nominations to nominate:

1st, 2nd, 3rd and 4th Vice-Pres.

Councilors for the 2nd, 8th, 9th and 12th Districts.

Councilor for 1st District (unexpired term).

2 Representatives in House of Delegates,  
A. M. A., for 2 years.

To fix place of meeting for 1908.

(By-laws, Chapt. VI., Sec. 2 (as amended June 12, 1903)).

The House of Delegates shall elect, annually, at its first meeting, a Nominating Committee of Five from the House of Delegates, no two of whom shall be from the same Councilor District).

(b) Appointment of other Working Committees.

(c) Proposal of Amendments to the Constitution.

Proposal of Amendments to the By-Laws.  
Other Miscellaneous Business.

*Adjournment.*

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**Second Session, Wednesday, May 15th.**

9 A. M.

1. Reading of the Minutes of the Previous Session.
2. Unfinished Business.
  - (a) Amendments to Constitution and By-laws.
3. Report of the Committee on the Study and Prevention of Tuberculosis.  
W. E. COATES, Onokama, Chairman.
4. Report of the Committee on the Patent Medicine Evil.  
G. A. HAFFORD, Albion, Chairman.
5. Miscellaneous Business.

*Adjournment to General Meeting.*

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**Third Session, Thursday, May 16th.**

8 A. M.

1. Reading of the Minutes of the Previous Session.
2. Report of Committee on Nominations.
3. Unfinished Business.
4. Report of Committee on Vital Statistics.  
H. B. BAKER, Lansing, Chairman.
5. Report of Committee on Venereal Prophylaxis.  
A. E. CARRIER, Detroit, Chairman.
6. Miscellaneous Business.

*Adjournment to General Meeting.*

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**GENERAL MEETING.**

MASONIC TEMPLE.

President—C. B. STOCKWELL, Port Huron.  
State Secretary—B. R. SCHENCK, Detroit.

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**First Day, Wednesday, May 15th.**

10:30 A. M.

1. Call to Order.
2. Prayer

REV. LUTHER E. LOVEJOY.

3. A Word of Welcome.

HON. W. B. BAUM, Mayor of Saginaw.

4. Address of Welcome on behalf of the Medical Profession.

DR. E. E. CURTIS, President Saginaw County Medical Society.

5. Report from the House of Delegates.  
B. R. SCHENCK, Detroit, State Secretary.

6. Address of the President.

C. B. STOCKWELL, Port Huron.  
Subject—"The Uplands in Medicine."

7. Miscellaneous Business.

8. Nomination of President for 1907-1908.

*Adjournment.*

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**Wednesday Evening, May 15th.**

8 P. M.

The members of the State Society and visiting ladies will be the guests of the Saginaw profession at an entertainment followed by dancing. Masonic Temple.

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**Second Day, Thursday, May 16th.**

9 A. M.

Address by the guest of honor.

**Dr. J. B. Herrick,**

Clinical Professor of Medicine, Rush Medical College, Chicago.

Subject—**Methods of Diagnosis.**

Discussion.

DR. GEORGE DOCK, Ann Arbor.

Following adjournment, the Medical Section will convene in the same hall. The Surgical Section will convene in adjoining room. There will be no session of the Gynecological Section until 2 P. M.

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**GENERAL MEETING.**

11:45 A. M.

1. Unfinished Business.
2. Report from the House of Delegates.  
B. R. SCHENCK, Detroit, Secretary.



3. Report of the Committee on Contract Practice.

T. S. LANGFORD, Jackson, Chairman.

4. Miscellaneous Business.

5. Announcement by the Committee on Nominations on the Result of the Ballot for President.

6. Introduction of President-elect.

*Adjournment sine die.*

## SECTION ON GENERAL MEDICINE.

MASONIC TEMPLE.

Chairman—J. B. WHINERY, Grand Rapids.

Secretary—R. S. ROWLAND, Detroit.

On account of the length of the program, and in order to give every one an opportunity, the fifteen minute rule will be enforced.

The Secretary of the Section will collect all papers as soon as read.

Discussions are limited to five minutes.

### First Session, Wednesday, May 15th.

1:30 P. M.

1. A Year's Experience in the Home Treatment of Pulmonary Tuberculosis.

W. M. DONALD, Detroit.

A paper written especially for the family practitioner. Citation of cases. Successes and failures. Causes of each. Necessity of early diagnosis. Pre-tubercular lesions. Treatment. Necessity of aborting complications. Curability of early lesions.

Discussion opened by W. H. Haughey, Battle Creek.

2. Therapeutic Bacterial Inoculation with and without the Opsonic Index as a Guide.

A. P. OHLMACHER, Detroit.

An account of the writer's personal clinical experience in treating various subacute and chronic infections according to Wright's method of bacterial inoculation based on the theory of opsonins.

Discussion opened by D. M. Cowie, Ann Arbor.

3. The Treatment of Arthritis by Bier's Passive Hyperemia.

FRANK SMITHIES, Ann Arbor.

Origin of the method; theory of its action; appliances needed; description of technic, with serial illustrations; errors in technic and their sequelæ; the time element and its importance; the therapeutic reaction; after-treatment. Consideration of cases to which the method of treatment is applicable; results in typical cases.

Discussion opened by Max Ballin, Detroit.

4. Observations on the Treatment of Diabetes Mellitus.

HUGO A. FREUND, Ann Arbor.

In the treatment a daily quantitative examination of the 24 hour specimen of urine is requisite. Many tests for this are laborious. The fermentation test is easily done and quickly performed; hence it recommends itself to the practitioner.

The treatment of a diabetic must be begun on an experimental basis; it is a dietetic problem. It is necessary to find out what foods including starches he can best take, at the same time maintaining his required number of calories daily.

Medicinal treatment is secondary, in the ordinary case, and requires experimentation with several useful drugs in order to keep the sugar and acetone bodies at a minimum. Citation of cases. Charts.

5. The Roentgen Rays in Internal Medicine.

P. M. HICKEY, Detroit.

The role of the Roentgen Ray in surgery—the Roentgen Ray in the diagnosis of pulmonary diseases, in cardiac lesions, in the diagnosis of visceral displacements, in the elucidation of renal obstructions, in the study of obscure neuralgias and the location of sinus disease.

Discussion opened by A. W. Crane, Kalamazoo.

### Second Session, Thursday, May 16th.

10 A. M.

1. A Complete and Practical Examination of the Alimentary Tract Made in Fifteen Minutes.

W. H. ENDERS, Eaton Rapids.

(1) Gastric Analysis. Test meal. Chemical tests for (a) free HCL. (b) total acid. (c) loosely combined chlorine. (d) lactic acid. (e) starch. (f) albumin. (g) pepsin. (h) rennin. (i) occult blood.

(2) Intestinal Analysis. The gross and microscopical examination of the stools. Chemical tests for bile and occult blood. Fermentation test, with drawing of apparatus.

(3) Urine analysis.

2. Observations on the Diazo Reaction in Urine.

WILFRID HAUGHEY, Battle Creek.

The chemistry of diazo reaction; what it probably indicates; clinical significance; opinions quoted. Report of experiments showing that the reaction occurs in various non-febrile conditions. Cautions as to the diagnostic value.

3. The Diagnostic Importance of Blood in the Stools.

L. J. HIRSCHMAN, Detroit.

The frequent appearance of fresh blood in the stools. The various sources from which it is derived. The early recognition of this symptom and its importance in the diagnosis of commencing malignant rectal and intestinal diseases. The importance of an early, complete proctologic examination in the cases which show any signs of rectal hemorrhage. Illustrative cases.

**Third Session, Thursday, May 16th.**

2 P. M.

**1. Maniacal—Depressive Insanity.**

A. M. BARRETT, Ann Arbor.

Attacks of true mania and melancholia of a certain type are but phases of a single disease. Study of histories of patients showing alternating attacks of excitement and depression. Characteristic course. Prognosis. General considerations.

Discussion opened by E. A. Christian and I. H. Neff, Pontiac.

**2. Disseminated Peripheral Nerve-irritation and Nervous Exhaustion. An Analysis of 350 Cases. Differentiation from Neurasthenia and Neuritis.**

THEODORE KLINGMAN, Ann Arbor.

There is a distinct class of cases presenting the clinical picture of neurasthenia but do not properly come under this head from the fact that the symptoms depend upon a primary disseminated peripheral nerve-irritation with marked nerve tenderness, which are directly in proportion to the amount of peripheral disturbance and disappear by relieving the peripheral condition.

Out of 350 cases presenting a typical symptom-complex of neurasthenia, there were but 57 that could be classed under the head of neurasthenia. The remaining number belonging to the class described above. Toxicity of the blood due to auto-intoxication. Recovery in from six to eight weeks.

Discussion opened by David Inglis, Detroit, and Jeanne Solis, Ann Arbor.

**3. Chronic Interstitial Nephritis and its Relation to Recurring Paralysis.**

B. A. SHEPARD, Plainwell.

Present conception of nephritis. Etiological factors.

A full comprehension of the meaning of the term sclerosis necessary for the appreciation of the conditions found. Possibilities of the pathological process in every part of the economy. Compensatory efforts of the various organs.

Symptoms: A classical grouping can not be made. Sleeplessness. Frequent micturition, especially nocturnal. Digestive. Ocular. Auditory. Respiratory. Cardiac and findings. Urinary findings variable.

Report of two cases of Recurring Paralysis with two possible explanations of the processes of production by chronic interstitial nephritis.

Prognosis: Considerations to be taken in giving.

Treatment: Hygienic, medicinal, direct and compensatory.

**4. The Treatment of Typhoid Fever.**

F. J. W. MAGUIRE, Detroit.

The writer will report one hundred and thirty-eight cases of typhoid fever, treated by his Carbolio Acid Injection method. He shall also show that milk is not the proper diet for typhoid fever patients. This treatment does away with cold baths.

On account of the length of the program, and in order to give every one an opportunity, the fifteen-minute rule will be enforced. Discussions are limited to five minutes.

The Secretary of the Section will collect all papers as soon as read.

**First Session, Wednesday, May 15th.**

1:30 P. M.

**1. Surgical Features of Typhoid Fever.**

H. C. WYMAN, Detroit.

Mortality from typhoid varies from 5 to 10 per cent. One third of deaths are due to hemorrhage or perforation. Other causes of death are meningeal, pleural, gall bladder and medullary infections. Surgery may remedy hemorrhage and perforation by enterostomy, etc. Surgery may also be invoked to drain meninges, pleura and bile passages.

**2. Gastroscopy.**

R. B. CANFIELD, Ann Arbor.

History of development of modern method of examination. Scope. Technic. Citation of cases.

**3. Direct Tracheoscopy as an Aid to Diagnosis.**

J. E. GLEASON, Detroit.

Papers 2 and 3 will be jointly discussed.

**4. A Plea for the Prostate.**

E. C. TAYLOR, Jackson.

An appeal for prompt and early operation—prostatectomy—for the relief of elderly men who are slowly dying from uremic poison, rather than procrastination, until it is too late.

**5. Demonstration of a New Apparatus for the Treatment of Fractured Patella.**

A. I. LAWBAUGH, Calumet.

As the separation of the patellar fragments is chiefly due to the contraction of the quadriceps extensor muscle, it becomes necessary to have this relaxed, to properly bring the fragments in apposition. In this apparatus this is done by a method of continuous extension. It is also necessary to fix the lower fragment by means of adhesive plaster strips.

To prevent tilting of the upper fragment the extension is made not in a direct line with the limb, but in a downward direction, obliquely from the upper sides of the knee-joint and sides of the patella.

This apparatus allows the whole limb to swing free, and passive motion can be made without disturbing the fragments or dressing.

In this method the knee-joint remains uncovered and any dressing or solution can be applied without difficulty.

**6. Rupture of the Bladder.**

H. O. WALKER, Detroit.

History, etiology and pathology. Complications. Symptoms. Operation with its technic. Report of cases.

**7. A Case of Perforation of the Small Intestine with Operation and Recovery.**

W. T. S. GREGG, Calumet.

The points of interest in this case are the exceeding difficulty in obtaining any history, the consequent uncertainty of diagnosis and the pathology of the ulcers which caused the perforation.

**SECTION ON SURGERY, OPHTHALMOLOGY AND OTOTOLOGY.**

MASONIC TEMPLE.

Chairman—L. A. ROLLER, Grand Rapids.

Secretary—F. J. LEE, Grand Rapids.



8. Two Common Orthopedic Causes of Sciatica.  
W. E. BLODGETT, Detroit.

Sciatica a symptom, not a disease. Chronic sciatica is often due to hypertrophic arthritis of the spine, or a relaxed and strained sacroiliac articulation. Diagnosis and appropriate treatment of both conditions. Case reports.

9. Remarks on the Etiology and Clinical Features of Acute Septic Peritonitis.  
T. C. IRWIN, Grand Rapids.

### Second Session, Thursday, May 16th.

10 A. M.

1. Notes on a Few Surgical Cases Presenting Unusual Points of Interest.

C. B. G. DE NANCREDE, Ann Arbor.

2. Demonstration from Casts of the Surgical Anatomy of the Female Pelvis.

WILLIAM FULLER, Grand Rapids.

3. Ocular Symptoms of Nasal Origin.

O. A. GRIFFIN, Ann Arbor.

Ocular disorders are frequently dependent upon inflammatory conditions of the nose or accessory sinuses. Illustrations showing anatomical relationship. These facts are generally overlooked by profession. Citation of cases.

4. Report of Three Ear Cases.

EMIL AMBERG, Detroit.

(1) Tympano-mastoiditis in a woman, seven months pregnant. Extent of destruction unusually great. Recovery. Delivery of healthy child.

(2) Subperiosteal abscess in a child aged 3 months.

(3) Cerebellar abscess complicating a chronic middle ear suppuration in a child of 5 years. Danger of waiting for operation in such a case.

5. The Relation of Eye Diseases to General Medicine.

E. J. BERNSTEIN, Kalamazoo.

Oculist should have general medical training, supplemented by hospital training or general practice and at least two years of special work. Reasons why refraction cannot be left to the optician.

Excellent central vision is compatible with such serious troubles as chronic glaucoma, retinitis pigmentosa, albuminuric retinitis, hemorrhagic retinitis, choked disc (pointing to cerebral trouble), and many other diseases which only the thoroughly trained expert can detect. When great damage is done then any one can tell, but importance of early diagnosis calls for only the best.

Oculists aid in first calling attention to tabes, nephritis, anemia, cardiac troubles, syphilis, arteriosclerosis, etc.

Discussion opened by W. R. Parker, Detroit.

### Third Session, Thursday, May 16th.

2 P. M.

1. Opsonic Treatment in Surgical Practice.

T. A. MCGRAW, Detroit.

2. Vaccine Treatment in Surgery.

W. P. HUTCHINGS, Detroit.

Papers 1 and 2 will be jointly discussed.

3. The Surgical Anatomy of the Supports of the Rectum.

J. A. MACMILLAN, Detroit.

1. A description of the muscles, fascia and ligaments that support the rectum. 2. Some pathological conditions due to injuries inflicted on these structures by trauma (from parturition, from surgical operation, etc.), by inflammation, by prolonged dragging of retained fecal material. 3. Surgical operations involving the rectal supports.

4. Tuberculous Adenitis, with Special Reference to Cervical Lymphatics.

J. A. ATTRIDGE, Detroit.

Tendency to metastases; portals of entrance of infection. Diagnosis: lymph current and glands first involved. Treatment of acute and chronic cases. Unfavorable results following some operations. Instruction to patient on leaving hospital.

5. The Diagnosis and Differential Diagnosis of Gallbladder and Bileduct Diseases.

F. B. WALKER, Detroit.

The diagnosis rests now upon a scientific basis. Some cases formerly regarded as gastralgias, cardialgias, remittent fevers, etc., are recognized now as affections of the biliary tract. Not only is the presence of gallstones discoverable but their location can also be determined.

The diagnosis of diseases of the biliary apparatus is made from the subjective symptoms, the objective symptoms and physical examination, and an examination of the feces and urine.

The differential diagnosis of gallbladder and bileduct diseases is made from the history of the case; the clinical symptoms; laboratory examination, and the exploratory incision.

6. A Case of Empyema with Difficulties.

F. B. FLORENTINE, Saginaw.

Repeated removal of drainage tubes by delirious patient. Necessity of an especial dressing in such cases. Resection of rib or ribs preferable to other methods. Value of aspirations, previous to radical operation. Thorough evacuation of pleural cavity. Large drainage tubes necessary for proper drainage. Radical operation should not be delayed. No irrigation.

### SECTION ON GYNECOLOGY AND OBSTETRICS.

MASONIC TEMPLE.

Chairman—W. H. SAWYER, Hillsdale.

Secretary—C. G. PARNALL, Jackson.

On account of the length of the program and in order to give every one an opportunity, the fifteen minute rule will be enforced. This will not apply to the papers in the Symposium.

The Secretary of the Section will collect all papers as soon as read.



**First Session, Wednesday, May 15th.**

1:30 P. M.

**Symposium on the Disorders of Menstruation.**

- (1) Amenorrhea.  
R. R. SMITH, Grand Rapids.
- (2) Menorrhagia and Metorrhagia.  
W. P. MANTON, Detroit.
- (3) Dysmenorrhea.

REUBEN PETERSON, Ann Arbor.

2. Abdominal Pain; its Diagnostic Significance.  
H. W. YATES, Detroit.

(a) A brief anatomical review of the cerebro-spinal system.  
(b) A closer study of nerve distribution and interdependence of nerve centers clears up many points in diagnosis.

3. An X-Ray Study of the Position of the Cecum in Nephroptosis.

H. W. LONGYEAR, Detroit.

4. The Conservative Treatment of Pyosalpinx.  
ROLLAND PARMETER, Detroit.

There will be no morning session of this Section on Thursday, May 16th.

**Second Session, Thursday, May 16th.**

2 P. M.

1. Hygiene in Pregnancy.  
W. H. HAUGHEY, Battle Creek.

Nervous, digestive, and circulatory systems. Secretions and excretions. Lay influences. Professional responsibilities.

2. Is the Accoucheur Properly Caring for, and being cared for in Obstetric Practice?

A. N. COLLINS, Detroit.

Importance of careful delivery, especially primiparae. Responsibility of attendant. Frequency of invalidism following labor. "Have had trouble since my first confinement"—a common gynecologic history. Methods of minimizing the shock, danger and subsequent pathology. Instrumental crimes of commission more frequent than omission. A plea for less frequent use of instruments. Fees. Conclusions.

3. A Plea for More Frequent Curettage Following Labor.

C. H. JUDD, Detroit.

Indications for curettage. A plastic rule for the performance of the same. Height of fever not an efficient guide for operation. Heat mechanism; thermogenesis, thermolysis, and thermotaxis in relation to temperature and degree of infection. Dangers of neglecting this operation far in excess of its gravity. Sequelae of neglected cases.

4. Practical Suggestions for the Limitation of Puerperal Infection.

J. E. DAVIS, Detroit.

Available statistics suggest a mortality altogether too high. Responsibility of patient a factor insufficiently emphasized. The nurse should be instructed especially in the things she ought not to do. The accoucheur versus his personal responsibility.

5. Obstetrical Service for the Laboring Classes. Some Problems it Presents.

CLARA M. DAVIS, Lansing.

Necessity for efficient service for a small fee. Obstacles to the meeting of these requirements by the medical profession. Present status of this class of obstetrical practice in Michigan: (a) Cheap service by the general practitioner. (b) Lying-in-hospitals. (c) Midwives. Questions for the future suggested by a study of conditions in other states and countries. (a) Is it possible for the medical profession to meet the requirements named? (b) Licensing and supervision of midwives.

**MISCELLANEOUS.**

Headquarters—Bancroft House.

Information and Registration — Masonic Temple. Every member should register. Checks will be given for railroad certificates. The latter will be certified and ready for return on Thursday morning.

All meetings will be held at the Masonic Temple on Central standard time.

Commercial exhibits will be found in the Masonic Temple.

The ballot box for the Presidential election will be found at the registration office. Only those registered are entitled to vote.

All meetings will be called to order promptly. The program is long. Those who are to read papers should carefully note the time and be present.

On account of the length of the program it is absolutely essential that no paper shall be longer than fifteen minutes. Every one on the program has been sent a personal letter to this effect. Papers handed in for publication may be any length.

**ENTERTAINMENT.**

The Profession of Saginaw County will make ample provision for the comfort and entertainment of the visiting members.

Special arrangements have been made for the entertainment of visiting ladies.

Committee on Reception at Hall.

Dr. H. M. Leach	Dr. F. B. Florentine
Dr. Harvey Williams	Dr. J. C. McCormick
Dr. F. W. Edelman	Dr. J. W. Freeman
Dr. Robert McGregor	Dr. J. N. Kemp
Dr. W. F. Morse	Dr. A. S. Rogers
Dr. W. B. Clark	Dr. G. L. Alger
Dr. K. Kahn	Dr. C. T. Starker
Dr. J. D. Bruce	Dr. G. H. Ferguson
Dr. O. P. Barber	Dr. S. C. I. Ostrom

## Committee on Printing.

Dr. P. S. Windham      Dr. A. Grigg  
Dr. F. S. Smith

Committee on Exhibits.

Dr. E. P. Richter  
Dr. D. E. Bagshaw  
Dr. M. W. Clift  
Dr. W. F. English  
Dr. G. H. Ferguson

Floor Committee for Dance.

Dr. G. H. Ferguson	Dr. P. S. Windham
Dr. M. W. Clift	Dr. T. M. Williamson
Dr. A. S. Rogers	Dr. B. B. Rowe
Dr. J. D. Bruce	

## REDUCED RAILROAD RATES.

One and one-third fare for the round trip. When conventions of regularly organized Societies are held in Michigan, at which *not less than one hundred persons* are in attendance, who present certificates issued by the lines of the Central Passenger Association, or lines of other Passenger Associations co-operating with the same, certifying that they have paid full fare of not less than 75 cents each to the place of meeting, the return of such parties is authorized at *one-third the first-class limited fare*, via the route traversed in going to the meeting, provided the rules are complied with and the Secretary of the Convention fills in the certificates at the point at which the Convention is held, certifying that the holders thereof have been in actual attendance upon the Convention.

Tickets for return journey will be furnished only on certificates dated not more than THREE DAYS before the date the Convention assembles, not more than TWO DAYS after the first day of the meeting, and presented within THREE DAYS after its adjournment (it is understood that Sunday will not be reckoned as one of the three days either before the opening date or after the closing date of meeting), and all return tickets will be for continuous passage; no stopover privileges being allowed on tickets sold at less than regular unlimited fares.

Blank Certificates are kept on hand by Ticket Agents of all lines in the lower peninsula of Michigan, and will be furnished by them upon application at the time tickets are purchased.

*"No refund of fare can be expected because of failure of the parties to obtain Certificates."*

A charge of 25 cents will be made at the meeting at Saginaw by Special Agent for each certificate issued by him.

certificate issued by him.

Dr. J. W. McMeekin	Dr. R. C. McGregor
Dr. G. W. Stewart	Dr. Neil McLaen
Dr. F. E. Parkinson	Dr. B. F. A. Crane
Dr. C. W. Ellis	Dr. R. H. Wilson
Dr. J. H. Powers	Dr. T. Briggs
Dr. Mercer Carter	

Dr. Martha Longstreet	Mrs. W. F. English
Dr. Harriet B. Brooks	Mrs. E. M. Richter
Mrs. S. I. Small	Mrs. Arthur Grigg
Mrs. S. E. Curtis	Mrs. T. M. Williamson
Mrs. C. H. Sample	Mrs. F. W. Edelman
Mrs. W. L. Dickinson	Mrs. A. S. Rogers
Mrs. W. J. O'Reilly	Mrs. G. H. Ferguson
Mrs. O. P. Barber	Mrs. N. R. Bradley
Mrs. D. B. Cornell	Mrs. J. N. Kemp
Mrs. B. B. Rowe	Mrs. D. E. Bagshaw
Mrs. H. M. Leach	Dr. Wealthy Dibble
Mrs. S. C. I. Ostrom	

## DELEGATES

COUNTY.	DELEGATE.	ALTERNATE.
Barry.....	G. W. Lowry, Hastings.....	R. V. Gallagher, Dowling.
Bay.....	F. E. Ruggles, Bay City.....	Wm. Kelley, Bay City.
Benzie.....	E. J. C. Ellis, Benzonia.....	C. P. Doyle, Frankfort.
Berrien.....	J. S. Beers, Derby.....	R. C. Allen, St. Joseph.
Branch.....	W. A. Griffith, Coldwater.....	H. W. Whetmore, Quincy.
Calhoun.....	W. H. Haughey, Battle Creek.....	C. E. Stewart, Battle Creek.
Cass.....	G. H. Hafford, Albion.....	S. K. Church, Marshall.
Chippewa.....	E. A. Planck, Union.....	J. W. Ketcham, Dowagiac.
Clinton.....	Robert Bennie, Sault Ste. Marie.....	W. Townsend, Sault Ste. Marie.
Delta.....	O. B. Campbell, Ovid.....	Eugene Hart, Eureka.
Dickinson.....	A. L. Laing, Rapid River.....	W. J. Laird, Nahma.
Eaton.....	G. B. Allen, Charlotte.....	C. S. Sackett, Charlotte.
Emmet.....	J. J. Reycraft, Petoskey.....	G. N. Nihart, Petoskey.
Genesee.....	T. S. Conover, Flint.....	F. R. Niles, Flint.
Gogebic.....	J. R. Moon, Ironwood.....	George Loope, Bessemer.
Grand Traverse.....	Sara T. Chase, Traverse City.....	E. B. Miner, Traverse City.
Gratiot.....	E. A. Bagley, Alma.....	I. N. Braidwood, Alma.
Hillsdale.....	D. W. Fenton, Reading.....	T. H. E. Bell, Montgomery.
Houghton.....	W. T. S. Gregg, Calumet.....	R. B. Harkness, Houghton.
Huron.....	F. A. Shaver, Grindstone.....	C. B. MacKenzie, Harbor Beach.
Ingham.....	J. W. Hagadorn, Lansing.....	H. B. Baker, Lansing.
Ionia.....	C. S. Cope, Ionia.....	W. E. Ogden, Ionia.
Isabella.....	P. E. Richmond, Mt. Pleasant.....	C. D. Pullen, Mt. Pleasant.
Jackson.....	A. J. Roberts, Jackson.....	E. C. Taylor, Jackson.
Kalamazoo.....	R. E. Balch, Kalamazoo.....	O. H. Clark, Kalamazoo.
Kent.....	C. H. McKain, Vicksburg.....	A. S. Youngs, Kalamazoo.
Lapeer.....	F. J. Groner, Grand Rapids.....	N. H. Kassabian, Coopersville.
Lenawee.....	J. D. Brook, Grandville.....	J. J. Rooks, Grand Rapids.
Livingston.....	G. W. Jones, Imlay City.....	Adam Price, Almont.
Macomb.....	D. L. Treat, Adrian.....	W. T. Clemes, Blissfield.
Manistee.....	J. E. Brown, Howell.....	H. F. Sigler, Pinckney.
Marquette.....	H. G. Berry, Mt. Clemens.....	E. E. Evans, Armada.
Mason.....	W. E. Coates, Onckama.....	L. S. Ramsdell, Manistee.
Mecosta.....	A. W. Hornbogen, Marquette.....	G. G. Burnett, Ishpeming.
Menominee.....	W. H. Heysett, Freesoil.....	T. J. Foster, Scottville.
Midland.....	J. McNeese, Morley.....	G. McAllister, Stanwood.
Monroe.....	W. R. Hicks, Menominee.....	R. A. Walker, Menominee.
Montcalm.....	J. H. Johnson, Midland.....	E. J. Daugher, Midland.
Muskegon.....	J. Valade, Newport.....	C. T. Southworth, Monroe.
Newaygo.....	D. K. Black, Greenville.....	James Purdon, Edmore.
Oakland.....	C. F. Smith, Whitehall.....	Gayfree Ellison, Muskegon.
O. M., C. O., R. O.....	G. W. MacKinnon, Oxford.....	N. B. Colvin, Pontiac.
Osceola.....	E. L. Heysett, Baldwin.....	G. T. Fields, Chase.
Ottawa.....	T. G. Huizinga, Zeeland.....	H. J. Poppen, Forest Grove.
Presque Isle.....	W. W. Arscott, Rogers City.....	V. W. Shirley, Onaway.
Saginaw.....	W. L. Dickinson, Saginaw.....	B. B. Rowe, Saginaw.
Sanilac.....	J. W. Scott, Sandusky.....	C. G. Robertson, Sandusky.
Schoolcraft.....	J. M. Sattler, Manistique.....	J. M. Lipson, Germfask.
Shiawassee.....	J. N. Eldred, Chesaning.....	C. McCormack, Owosso.
St. Clair.....		
St. Joseph.....	J. R. Williams, White Pigeon.....	M. Sabin, Centerville.
Tri.....	W. B. Wallace, Manton.....	J. M. Wardell, Cadillac.
Tuscola.....	H. L. Morris, Vassar.....	R. M. Olin, Caro.
Washtenaw.....	J. F. Breakey, Ann Arbor.....	I. D. Loree, Ann Arbor.
Wayne.....	J. A. Wessinger, Ann Arbor.....	J. G. Lynds, Ann Arbor.
	A. P. Biddle, Detroit.....	J. A. Attridge, Detroit.
	W. H. Hutchings, Detroit.....	Emil Amberg, Detroit.
	H. W. Yates, Detroit.....	F. H. Newberry, Detroit.
	F. W. Robbins, Detroit.....	L. J. Hirschman, Detroit.
	Florence Huson, Detroit.....	W. E. Blodgett, Detroit.
	W. W. Warren, Detroit.....	G. W. Wagner, Detroit.
	Guy Kiefer, Detroit.....	V. C. Vaughan, Jr., Detroit.
	S. J. Miner, Detroit.....	R. B. Cummings, Wayne.



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

#### Use of X-Rays in Unresolved Pneumonia.—

EDSALL and PEMBERTON were led to a trial of the X-rays in this condition by some previous observations of the effect of the rays on metabolism, which seemed to indicate that the increased metabolism was due to an acceleration of autolytic processes inherent in the tissues. If this view is correct, unresolved pneumonia is evidently a most suitable condition for the use of the rays, inasmuch as the normal digestion and resolution of the pneumonic exudate is known to be caused by ferment processes, while Flexner's observations indicate that failure of resolution is often at least, due to insufficiency or absence of digestion of the exudate.

Two cases are described in this paper, in addition to one previously reported by Musser and Edsall. All these were cases of simple failure of resolution, without fever or complications, or evidences of tuberculosis, and in all time enough had elapsed since the crisis to make it evident that under ordinary treatment resolution either would not occur at all, or would be so slow and imperfect as to lead to permanent crippling of the lung. The case previously reported had had a consolidation of the right upper lobe, which persisted up to 39th day of the disease, at which time the treatment, consisting of five-minute exposures of the affected part, was begun, and continued for four days. Decided improvement was noted on the third day, which progressed rapidly. At discharge, two weeks from the time of first treatment, he was practically well.

Of the two later cases, one had a persistent consolidation of the left lower lobe, and the other a similar condition of the right upper lobe. The first received seven treatments on successive days, and the second nine treatments in 13 days. In both the evidences of consolidation disappeared almost completely. On these two cases metabolism observations on the urine were carried out, the results of which showed a remarkable increase in total nitrogen and chlorides, somewhat less in phosphates, and little or more in uric acid, after the beginning of the treatment. As resolution progressed, there was a coincident decrease in excretion of these substances until, when it was practically complete,

the excretion was about at its former level.

The results in these cases lead the authors to conclude that further tests of the treatment are desirable. To obtain just conclusions in such tests, however, certain considerations must be kept in mind. First: the condition must not have continued so long that organization of the exudate has occurred; second: the condition should be chiefly a real lack of resolution and not a continued inflammation of the lung; third: tuberculosis must, so far as possible, be excluded. Finally, such treatment should be carried out only with a realization that there are possible dangers associated with it, and treatment should at first be tentative, with short exposures and small doses. The use of the rays in the acute stage of pneumonia might be especially dangerous.—*Amer. Jour. Med. Sci.*, Feb., 1907.

#### The Treatment of Carcinoma With Trypsin.

—VON LEYDEN and BERGELL have made trials of pancreatin in the treatment of cancer, as its use seems to them to be rational in theory. To get a sterile preparation, the pancreatin was shaken with ether for 24 hours, and the ether removed by decantation and dessication in vacuo. It was next shaken ten hours with sterile water and the solution finally cleared by centrifugation. This gave a concentrated, stable solution. They made use of the ferment by direct injection and by oral administration, having first determined that, when given in large doses, a part at least is absorbed and reappears in the urine. Their results were not so favorable as others have reported. They got only a circumscribed solution of the tissue by local injection and could determine no definite effect on internal tumors after oral administration of large doses for months. They think that nearly all not too far advanced stomach cancers, without metastases, react favorably. They have not observed in any case that a tumor responded to the treatment by increased growth, as it is the habit of these tumors to do after mechanical, chemical, and thermal insults. They promise further work on the subject, which they evidently regard as encouraging.—*Zeitschs. für Klin. Med.*, Vol. 61, p. 360.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**The Value of Trephining as a Palliative Measure in Tumors of the Brain.**—The classical symptoms of tumors of the brain are: Optic neuritis (which usually ends in total blindness); severe headache; and vomiting,—all of which symptoms, being dependent on pressure, can be relieved or entirely removed by a free opening in the skull and dura mater. The most serious symptom of all, is of course, optic neuritis, on account of its resulting in blindness; and if there is any means of averting this dreadful calamity it is our duty to employ it. The most important factor in the production of optic neuritis is increase of intracranial tension, and consequently Horsley found that the optic neuritis rapidly subsided after opening the skull and the dura mater. He says that in no case of optic neuritis (excepting those of toxemic or anemic origin) should the process be allowed to continue after it has once been diagnosed, and if blindness results therefrom, the responsibility is very heavy upon any one who fails to advise an opening of the dura. It is desirable that the gravity of this responsibility should be generally recognized.

It is usually necessary to make a free opening in the dura mater as well as to remove a portion of bone. As to the prediction of the improvement of vision after such procedure everything will depend on the condition of the discs. Where the neuritis had not passed on to atrophy the sight will be saved. Horsley states that the optic neuritis commences on the side of the lesion, so that one should be able to judge the side of the lesion by observing which of the nerves is first affected, or, if both are affected, the one which seems to be suffering the greatest changes.

BRUCE shows on five cases how important it is that these patients should be submitted to surgical treatment early, and what good results can be obtained by the very safe and simple procedure of trephining.—H. A. Bruce, *Annals of Surgery*, April, 1907.

**Therapeutic Value of Thiosinamin.**—Thiosinamin was first recommended by Hebra in

1892 as a drug able to dissolve or soften hard scar tissue. Chemically thiosinamin is a product of mustard oil, alcohol and caustic ammonia (allyl-sulfo-urea). In recent literature, many favorable reports have appeared of the action of thiosinamin on tough scar or fibrous tissue, as in cases of benign stricture of the pylorus or esophagus, Dupuytren's contraction of the fingers, urethral strictures, keloids, adhesions of ovaries and tubes, scars on cornea, adhesions of tonsils, etc. WOLF subjects all these reports to a severe criticism. He had occasion to operate on a case of pylorus-stricture which was claimed to be improved by thiosinamin injection. The pylorus was found almost entirely obstructed by a very hard scar; no influence of thiosinamin could be detected. From these and similar observations, WOLF concludes that the reported influence of thiosinamin on internal scar tissue (esophagus, pylorus, pleuritic adhesions, etc.) is very probably imaginary.

Thiosinamin creates a local hyperemia and local leucocytosis, hence some local resorption of scar tissues by injection of thiosinamin is possible. Thiosinamin seems to have some resorbing influence on keloids, on the new formed fibrous tissue in Dupuytren's contraction of fingers, but often causes local sloughing and should therefore be used carefully. The influence of thiosinamin is so doubtful that there is no justification for delaying, by its use, surgical measures that are known to promise safe and good results. The distant influence of thiosinamin on scar tissue by internal or hypodermic injection is very doubtful; only local injections direct into the fibrous scar may have some influence on the same. Thiosinamin is given by injecting 2-15 minims of a 5-15% alcoholic solution. Others use a solution of two parts thiosinamin in four parts glycerine and fourteen parts water. Internally it is given in capsules containing  $\frac{1}{2}$  gr. of the drug, six capsules to be taken during the day. The injections are painful and sometimes cause feverish reaction. Fibrolysin in a combination of thiosinamin and sodium salicylate and acts the same as thiosinamin alone.—*Archiv fuer Klinische Chirurgie*, Vol. 82, Part 1.



## GYNECOLOGY.

Conducted by

W. H. MORLEY, M. D.

**Experience in the Treatment of Retro-displacements of the Uterus by Operation upon the Round, Utero-sacral and Utero-vesical Ligaments.** Report of 129 cases.—BOVEE gives the results of his experience in the connection of retro-displacement of the uterus. According to him, an uncomplicated case of retroversion requires no surgical treatment. The pathological conditions resulting from backward displacement of the uterus must be considered and the treatment of the complications carefully and symptomatically performed.

The author describes at some length the various anatomical relations of the ligaments that hold the uterus in its normal position. The broad ligaments are most important, as their size, strength, and anatomical distribution show. The round ligaments exert only a small and intermittent power against backward displacement of the uterus. Their function is to resist pressure from an over-filled bladder. The uterosacral ligaments prevent forward displacement of the supravaginal portion of the cervix, and in connection with the utero-vesical ligament, aided by the fascia in the vaginal vaults, form a strong diaphragm, which holds up the uterus and controls the position of the cervix, to which they are attached. In the condition, which exists in many cases, in spite of complete rupture of the perineum with cystocele and rectocele, there is no displacement of the uterus, the author sees the importance of the integrity of the parts described and the great importance of the ligaments in the normal position of the uterus.

The treatment of the complications must be the chief aim. He describes the most common complications, such as endometritis, metritis, etc., and their importance as etiological factors. According to his personal experience, which was obtained from 129 operative cases, the Alexander operation has only a limited field, which the Goldspohn modification has somewhat widened. The vaginal fixation is hazardous and the ventro-suspension unsurgical and dangerous.

There were 61 vaginal and 68 abdominal operations. Per vaginam, the round ligaments alone were shortened in 21 cases. The uterosacral alone in 16 cases and both in 24 cases. Curettage was performed in every case, trachelorrhaphy was performed in 21 cases, perineorrhaphy in 23 cases, anterior or posterior colporrhaphy or both in 14 cases. In 10 cases adhesions of the uterus or adnexa or both separated, and the ovaries and tubes resected or removed. One inguinal herniotomy was done and two recto-vesical fistulae closed. In 12 cases trachelorrhaphy, in 16 cases

perineorrhaphy and in 16 cases colporrhaphy was performed. Removal of one or both appendages was done in 51 cases. In 6 cases, herniotomy, in 49 cases appendectomy was performed. Pelvic adhesions were separated in 49 cases. The round ligaments were shortened after the method of Baldy in 60 cases. The sacro uterine ligaments in 52 cases.

Examinations were made to determine the remote results in 60 cases. Six of these were after confinement. The results were entirely satisfactory, in fact as well as could be expected from any surgical procedure, except in one case following a confinement. When the anterior vaginal wall with the utero-vesical ligaments is attached to the cervix at a point abnormally low, he does the following operation. An incision is made nearly parallel to the anterior cervical wall and the mucosa is pushed back. The vesical ligaments are grasped and separated from the uterus and the uterus from the bladder. At the same time the uterus is drawn downward. The vesical ligaments and the anterior vaginal are fastened to the cervix at a higher point. If the anterior vaginal wall appears too short, then before suturing the cervix is carried well backward. The anterior vaginal folds are doubled and the transverse incision closed in an anterior-posterior direction. Shortening of the sacro-uterine ligaments can be done at this time, when necessary.

In the after-treatment, the patient must assume the latero-prone or the prone position for 10-14 days. After an operation for shortening the round ligaments this is absolutely necessary. In place of the Goldspohn operation with its double incision the author makes the median incision with intraperitoneal instead of inguinal shortening of the ligaments. He recommends this as in some cases he found the round ligaments did not enter the inguinal canal but were attached to the anterior superior spines.

The author closes with the following deductions: 1, that the complications, rather than the uterine displacement, furnished the cause for surgical relief; 2, all operations done, having in view the correction of uterine displacement, should be based on the pathologic and anatomic abnormalities of the uterus and adjacent structures. 3, That any operation that changes one dislocation of the uterus into another is illogical, and hence unsurgical. 4, As a rule, the largest proportion of cases of retroversion of the uterus that require special operations are best treated by proper procedures upon the round and uterosacral ligaments.—*Surg. Gyn. and Obst.*, 1905, Vol. 1, No. 6, p. 511.



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

C. W. EDMUNDS, M. D.

**Influence of Quinine on the Uterus.**—

MÄURER reports on the use of this drug in the women's clinic in Giessen. In all it was used in 78 cases, in 63 of which it was given to stimulate labor pains, or to strengthen them, and in 15 cases it was used in the treatment of abortion. In 78% of the cases a distinct action of the quinine could be observed, while in 22% it was more or less inactive. From their experience Mäurer recommends that the drug should be given by mouth when possible, but it may be given by hypodermic if necessary. Fifteen grains of the sulphate are given and if, in the course of an hour, no action has appeared, seven and a half grains more are administered. Should this also remain inactive, another dose of seven and a half grains is given at the end of half an hour, but if this third dose has no effect it is not worth while to continue the drug. In 42 of the 50 cases in which it was used during the course of labor it strengthened the pains and made them more regular. In two cases in which the membranes had ruptured previously and no pains were present, after the use of quinine, powerful contractions appeared which shortened the duration of labor. In such cases as these MÄURER found the drug to be of the greatest help, and he gives the details of several very interesting cases to illustrate its action in this class of cases, as well as others. For the bringing on of premature labor the drug was used in 9 cases with good results and in five it had little effect. In fourteen cases of abortion it was used with good effect in ten. The author believes the drug is absolutely harmless to both the mother and child.—*Deutsch. medicin. Wochens.*, 33, No. 5, p. 173.

**Action of Drugs on the Uterus.**—

KURDINOWSKI has studied experimentally the action of various drugs upon the uterus and finds that quinine exerts a marked influence on the contractions of the organ, strengthening and prolonging them. In some cases the condition produced resembled almost a tetany of the uterus. He calls attention to the fact that in its use, therefore, the physician must always bear in mind the possibility of influencing unfavorably the circulation in the placenta. On the other hand the "tonising" effect might be of very great service in certain conditions of atony of

the uterus, perhaps associated with hemorrhage, where a long continued contraction of the organ would be desirable; or perhaps as an aid to involution.

Baberin (an alkaloid found in *hydrastis Canadensis*) KURDINSKI found caused a marked increase in the strength of the uterine contractions without altering their character. He strongly recommends its use in obstetrics. Stypticin called forth strong contractions which took on more or less of a tetanic type. He recommends that it should be used after labor to act as a tonic to the uterus in much the same conditions as are named for quinine. The contractions produced by hydrastinine are also of a slightly tetanic nature, so it would be indicated in conditions like those mentioned for quinine and stypticin.

Adrenalin exerts a very strong influence on the uterine movements, but on account of its very wide sphere of activity it should only be used in very urgent cases of uterine hemorrhage, and then only if there is no cardiac contraindication. When employed it must be given in minimum doses, as larger amounts exert a paralyzing influence on the organ, defeating the object for which it is given. Physostigmine (Eserine) produced greatly increased contractions which were never of the tetanic type. KURDINOWSKI recommends it in cases where the labor pains are weak, in conditions like those recommended for berberin. Caffeine and strychnine gave negative results.—*Arch. f. Gynaekologie*, B. 78, s. 539.

**Quinine on the Uterus.**—In his experiments on animals CUSHING found that quinine caused a strong contraction of the uterus which passes off in from one to two minutes, not being nearly as prolonged as that produced by ergot. During the relaxation which followed, the irritability of the organ seemed to be increased, the contractions being stronger and more regular.—*Journal of Physiology*, Vol. XXXV., p. 16.

**Hydrastis on the Uterus.**—FELLNER does not agree with Kurdinowski in regard to the tetanic nature of the contractions called forth by the hydrastis. He says they are slower and the periods of relaxation are longer and come on earlier than after the administration of ergot.—*Arch. f. Gynaekologie*, B. 78, S. 442.

## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Joint Affections in Nervous Disease.**—Most interestingly and practically, BARKER, of Johns Hopkins University, calls attention to the intimate relation between diseases of the joints and the nervous system.

The joint affections in nervous disease, he groups thus: 1. The intermittent joint effusions. 2. The arthropathies of tabes and dementia paralytica. 3. The syringomyelic arthropathies. 4. The painful joints of the psychoneurotics.

An afebrile effusion without local redness or heat recurring with a regularity which varies in different cases, the intermittent joint effusion is a most remarkable and interesting affection and, naturally, not infrequently fails of correct diagnosis, which here becomes an important matter for it is most undesirable to treat by prolonged immobilization a joint which will recover by much milder and less inconvenient methods of treatment, e. g., the application of flannel bandage, hydrotherapy, psycho-therapy, etc. Its sudden onset, absence of fever, short duration and periodical recurrence ought to serve fairly well to establish the diagnosis.

Tabetic arthropathy is a more serious affair. It, too, has a sudden onset commonly, a firm, painless swelling of a joint extending to the surrounding soft parts and being rapidly followed by changes in the structure of the joints, dislocation, subluxations and other abnormal positions of the bones often following in a short time.

The swelling does not pit on pressure and often reaches its height in a few hours. Rarely the swelling is gradual.

The occasional rapid diminution of swelling and return almost to normal has given rise to the distinction of the benign from the more malignant form. They may occur at any stage of tabes and flail-joints are their not infrequent sequels.

In mild cases the capsule of the joint and surrounding ligaments suffer but little damage but in more severe cases these structures become fused with adjacent tissues. A neglected joint often involves serious damage as the price of its own use. Subclavicular dislocation at the shoulder or dorsal iliac dislocation at the hip are common deformities, and sometimes the head, neck and great trochanter of the femur entirely disappear. Hypertrophic changes in knee and ankle are common, the ends of the bones becoming enlarged, numerous osteophytes appearing, joint surfaces becoming eroded, the tibia being often dislocated backwards. Other joints may be affected, the small joints less commonly so.

The tabetic foot and the tabetic spine, types in

which these parts are seriously affected are occasionally met with.

Of lesser frequency but closely resembling the above are the joint affections in syringomyelic affections. They occur more frequently at 40 than in childhood and are not so frequently painless. The hypertrophic enlargement of extremities of the bones entering into the formation of the joint is most noticeable here. Habitual dislocation of the shoulder in syringomyelia has been emphasized by some. Rest and orthopaedic measures may accomplish something.

The joints of the psychoneurotics afford an interesting lot of painful affections in the arthralgias of hysteria, neurasthenia, and psychasthenia. The knee, hip and shoulder are the joints most frequently affected, many of the cases following trauma of some sort, and more frequently a period of "psychic meditation" follows closely after the trauma before the joint affection appears, and in many cases no objective evidence of physical trauma is to be found. The hysterical, neurasthenic, and psychasthenic stigmata usually precede the joint involvement. The pain is usually "horrible and unbearable" and is increased by sympathy and is often more intense in the shin and soft parts than in the joints themselves. Hyperalgesia may suddenly change to a hyperalgesia of one-half of the body.

A few cases of this kind have been associated with rather a more of muscular atrophy than may be attributed to disuse and these are puzzling.

The deep chloroform narcosis, advised by Charcot, is very useful in some of these cases for diagnostic purposes, contractions disappearing and the moral functioning of a joint being thus found easy.

Isolation and by it securing "medical obedience", persuasion, encouragement and diet are quite as wonderful in their results as are the pilgrimages of these patients to the shrines of St. Anne de Beaupre, Lourdes, osteopathy, or Christian science.—*Jour. Amer. Med. Ass.*, Feb. 2nd, 1907.

**Foreign Correspondent.** *Revue de Psychiatrie* (published in Paris) has for its foreign letter in the January number, a five page communication written by Dr. C. B. Burr, of Flint, and translated into French, in which he interestingly reviews the meetings at Boston in June last of the American Neurological Association, the section of Nervous and Mental Diseases of American Medical Association, the Medico-Psychological Association, some interesting reported psychiatric cases, the extent of the San Francisco earthquake, etc., altogether a very readable letter.

## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**Concerning Primary Larynx Tuberculosis.**

MANASSEE reports a case of primary tuberculosis of the larynx, the fourth case on record where absence of lesions in other parts of the body could be demonstrated by post mortem examination. A woman 55 years of age, suffered pain in the throat for four weeks, and for the previous eight days before examination experienced a difficulty in breathing. Examination showed the laryngeal mucous membrane diffusely reddened, the vocal cords only slightly infiltrated, and the presence of subglottic swelling from the right posterior wall, occluding the lumen of the trachea. Tracheotomy was performed, but the patient died of pneumonia five days later. Microscopical examination of the lower half of the right vocal cord, and of the subglottic parts on the right sides, perichondritis at the cricoarytenoid joint, and on the cricoid, calcification of the thyroid cartilage with partial caseation. All remaining parts of the body were free from tubercular infection. (*Archiv. für Laryngol.* XIX. ii.)

**The Use of Local Anesthesia, and Anaemia in the Radical Operation for Suppuration of the Antrum of Highmore.** NAGER has performed the radical operation, according to the method of Luc-Cadwell or Gurber, thirty-one times on twenty-five patients under local anesthesia with entire success. Anesthesia is produced in the following way: Thirty minutes before operating, morphine is given hypodermatically, the patient having had a light breakfast. To the lateral nasal wall is applied a solution of 10% cocaine, and 1-1000 adrenalin. Then the antrum is washed through the middle meatus, and dried with the aid of an air bag. Two ccm. of Schleich's solution ii, containing 0.1% cocaine, with three drops of adrenalin, are then injected into the antrum. In the middle meatus is then introduced cotton, saturated with 10% cocaine and adrenalin. One ccm. of 1% cocaine, with three drops of adrenalin, are then injected under the periosteum, over the canine fossa. For the submucous parts 4-5 cc

of Schleich's solution ii are then used. After ten minutes wait, the operation is carried out in the usual way, with little pain to the patient, or annoyance to the operator on account of bleeding. (*Archiv. für Laryngologol.* XIX Heft I.)

**Concerning Hypopharyngoscopy.** VON EICKEN presents a new instrument which he calls a larynx lever, made in the form of a laryngeal applicator, only stronger. After thoroughly cocaineizing the larynx, the instrument is introduced just below the vocal cords, and using the molar tooth as a fulcrum, the handle is raised, thereby drawing the larynx forward, when by the aid of a mirror, the hypopharynx and the beginning of the esophagus become visible. The use of this method is indicated in the diagnosis of carcinomata of the hypopharynx, in cases of foreign body, of diverticula and for operative procedure in perichondritic abscesses of the cricoid, and in the removal of occasional benign tumors. (*Archiv. für Laryngol.* XIX II.)

**Nose and Throat Disturbances in Diseases of the Circulatory Apparatus.** SENDZIAK presents a bibliography of this subject, together with the result of his own experience. The most frequent nasal symptom is epistaxis, due to venous stasis, the result of valvular diseases, to arteriosclerosis, and more rarely to myocarditis. It is characterized by being bilateral and the bleeding point being especially from the cavernous tissue. The next most common condition is hyperemic catarrh, the mucous membrane being pale and flabby. On the other hand hypertrophy of the turbinates can cause various neuroses of the heart, such as angina-like attacks and palpitation. This is proven by the temporary relief afforded by the use of cocaine, and the permanent relief by operative procedure. On the part of the mouth and pharynx, hemorrhages from dilated veins at the base of the tongue, ecchymoses, venous hyperemia with lowered resistance to catarrhal processes, fullness and dryness of the throat are the most common conditions. (*Monatschrift für Ohrenheilkunde,* XL 12.)



## OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

**Otitic Dyspepsia of Infants.**—Ponkif has shown by his systematic investigations that otitis media in children is not only a local but also a general disease. KISHI says that otitis media in infants is of importance not only to the otologist but also for the specialist in children's diseases. He observed during half a year 15 cases of otitic dyspepsia in infants: four after measles, one after bronchitis; in 10 no cause could be found. KISHI has found as especially important symptoms in otitic dyspepsia enlargement of the liver and gnashing, besides the well known peevishness, loss of appetite, digestive disturbances, diarrhea, vomiting, falling away. As long as there exists an otitis media without a perforation of the drum membrane the enlargement of the liver persists and the liver retains its hard consistency. The infant gnashes with its teeth as soon as pus accumulates in the tympanic cavity. These symptoms are characteristic for otitic dyspepsia and always point toward otitis media in infants. Furthermore, in otitic dyspepsia there are never violent inflammatory appearances on the drum membrane, but only pronounced cloudiness and bulging. KISHI is of the opinion that otitic dyspepsia is created because the products produced in the tympanic cavity wander into the gastro-intestinal canal through the Eustachian tube. The enlargement of the spleen in otitis media of infants was especially emphasized by Ponkif pathologic—anatomically. Clinically it cannot always be demonstrated. KISHI found enlargement of the spleen only three times in fifteen cases.—*Archiv. fuer Ohrenheilkunde*, Vol. 70, Dec., 1906.

**Death From Meningitis After Faulty Attempts to Remove a Stone From the Ear.** Autopsy. SCHWARTZE (Halle) says that a boy five years of age while playing, put a stone in the left ear. No previous ear trouble, according to father's statement. A physician tried to remove the stone from the ear with instruments. The next day, on June 19, the father brought the boy to the clinic on account of the pain the boy suffered. The meatus of the left ear was reddened and swollen; the lumen was narrowed, in the depth was offensive pus. The anterior and posterior walls of the canal showed plain traces of previous injury, (scratch effects with superficial loss of skin; some blood crusts). In the depth of the canal was a whitish stone tightly fastened in the sinus of the outer ear canal and filling more than two-thirds of the lumen of the

canal. After two unsuccessful attempts, on two days, to remove the stone by syringing, and in the absence of any symptoms of meningeal irritation, the stone was removed, on June 21, after temporary detachment of the auricle and the cutaneous canal, with the aid of Zaufal's lever. It was a white pebblestone with sharp edges and corners, as large as a very large cherry stone. After the operation the boy vomited frequently, for which the narcosis was accused, but the vomiting continued on June 22, 23, 24, 26. Slight variations of temperature. June 28, tenderness on pressure on muscles of neck. On June 29, after a very restless night, with one vomiting spell, further increase in temperature. Tenderness of neck muscles remains; sensorium free; no ocular symptoms but patellar reflexes slightly exaggerated; no liquor on lumbar puncture. On account of the probability of purulent meningitis the tympanic cavity was laid bare, showing the mucous membrane swollen, but nothing else. June 30, temperature in the evening over 104°, violent vomiting; pulse 90-100; at times intermittent. On the following days vomiting continued; pain in neck and between shoulder blades, turning of head painful, slight dimness of sensorium, left pupil becoming wider than right, unconsciousness, delirious, and death in coma on July 11.

**Autopsy.** Lepto-meningitis cerebro spinalis purulenta. Hydrocephalus internus. Purulent infiltration of the plexus and tela choroidea. Softening of the brain around the posterior horn. Pronounced edema of the brain. Pneumonia of both lower lobes. The niche of the round window surrounded and almost filled by granulations. Beneath the same the bone is reddened. (Periostitis and otitis). The membrane of the round window entirely missing.

**Epicrisis.** A direct injury of the round window is to be excluded. The destruction of the membrane of the round window occurred by pus retention. The only symptom was great pain in the ear.

SCHWARTZE comes to the conclusion that he will not any longer adhere to the principle to wait with surgical interference until fever and plain symptoms of brain irritation are present. SCHWARTZE will regard as indication for immediate surgical removal of a foreign body even continued violent pain in the ear alone, which is present after unsuccessful instrumental trials to remove the foreign body, if it is fastened tightly in the depth of the ear canal (*ibid*).

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## Original Articles

### THE UPLANDS IN MEDICINE.

C. B. STOCKWELL, M. D.,  
Port Huron.

#### THE PRESIDENTIAL ADDRESS FOR 1907.

A century ago medicine was groping about with the tallow dip and the torch. Little was illuminated but the darkness.

To-day we are coming into the clear broad light of the hills.

We can look back on a marvelous march from valley shade to the uplands.

In the clearer light, new truths and principles in the science of medicine are springing up in endless succession.

In the art of medicine the skilled touch and expert hand are developing their perfect work. Our material advancement is ideal; not so, altogether, the conditions that govern our methods and men. Here-in our showing to-day brings to us not that honor or credit which we should have attained.

Co-operation and interdependent efforts should have accomplished more where the light and atmosphere of the uplands lend so much of inspiration. Unfortunately, while unity was lacking, ambition slumbered and slept.

To-day, to an awakening professional spirit, there is a call for betterments, a call to bring up all lines abreast of our material advancement.

We need a better showing for the time employed by the students in schools of medicine.

We need better text-books, journals and works pertaining to the science of medicine, in the schools and out of the schools.

We need more systematic and thorough work in many of our county medical societies, together with the fostering of a glowing, if not a burning, sense of brotherhood.

We need plans worked out and programs arranged for co-operating with, and giving to the public, by illustrated lectures and through the press, information which it ought to know and must know.

We need, and must have men of a high general average,—standardized men—men trained and equipped to fight to a finish those evils flourishing in our midst, which are not only harmful and destructive to the people, but depraving and damning to ourselves.

This outline of betterments calls for specifications.

As to the students in medicine: Are they getting a return in knowledge and equipment commensurate to the time spent within college walls? No; probably not in one school the world around.

In these days of specialism in every department of medicine, the primary spe-

cialty is overlooked,—that of devising pedagogic methods which will, in one-half to three-quarters of the time now spent, fix in the average student brain, an equal amount of practical knowledge.

During the century invention has developed a transit so rapid, that the stride of the man of early days now gives place to the stride of the mythical being wearing the seven-league boots.

The woof and warp, woven so laboriously at the ancient loom, now commingle before our eyes while seconds count as did hours. System and improvements in business methods and industries, whether in counting house or factory, get practical results between sun and sun which once called for weeks of toil.

Why then, does not invention of better methods of instruction and education keep pace with the industries?

With present methods, the student of the future will be overwhelmed in an attempt to keep pace with the advance in medicine which is to come.

The student is made a drudge. He is made to handle too much chaff while looking for the grain.

The years of his apprenticeship have been lengthened to four, yet he does not get value received, as we count years to-day, for this long period, a period not too long if filled with efforts wisely and well directed.

Frank and justifiable criticism is being made regarding the so-called art of teaching in the public schools.

A noted instructor in this state, a college president, speaking of ten weeks being required in the public schools in which to teach decimal fractions, said: "I will guarantee to take any average child and teach him decimal fractions, and teach it as well as he will ever need to know it, in one hour."

He further said: "There is a foolish notion among teachers that education must proceed very slowly in order to be

thorough; quite the opposite is true."

I quote once more: "The work in the eight grades can be done better in six grades than it is done to-day, by the simple application of psychological methods to all grades of work. Those two years are worth a thousand dollars to every child who goes on to a higher education and professional work."

If two years saved to the child means a thousand dollars, how priceless will be the future methods in education to the medical student who to-day, in the full flush of his money earning power, does not begin to receive from primary to professional school, an adequate return in better brain storage and brain equipment, to anywhere near pay for the outlay in wear and tear and money.

The application of "psychological principles and better pedagogical methods" will relieve this tax and make easy that which is now attended with fatigue to a brain limited in its workings by inferior methods of education.

The problem is not an easy one, but there is a call for its consideration. It calls for careful investigation and study on the part of the Committee on Education of the American Medical Association. It calls for recommendations and suggestions from specialists in reform pedagogic work.

As to teachers and books in the medical schools, the reforms needed are too self-evident to receive much attention.

There should be a demand that only those instructors shall have places in our schools who have a fitness, a talent, yes, a genius for placing and fixing ideas in the student mind.

Not blood alone, nor favoritism nor pull should count; if backed by no better qualifications these should bar out.

Only those text-books should be used in which words crystalize ideas; in which illustration instantly fixes a mental conception. Illustration should be at a maxi-



mum, for ten strokes of the illustrating pencil are worth a hundred strokes of the descriptive pen.

For the medical practitioner there is a crying need for reform in books, journals and theses pertaining to his craft.

The life of the busy physician is being wasted prodigally when groping through cloudy pages to catch a single idea, or when listening to a mass of verbiage in an essay, trying to catch a practical suggestion.

The hour demands thought which is clear and to the point, whether coming from page or tongue.

A live thought flashes; it does not smoulder. Diagram and illustration enhance its value and bring back quick results.

Where there is a lack of these, where there is no system, no pre-arranged program for each year's work, there we will find county medical society life flickering.

A society that leads a tramp, "hand to mouth," existence, satisfies no ambition, gives no inspiration to post-graduate work, kills unity and fraternalism.

With work laid out, and wheels turning, unity and interest need no fostering care,—many of our societies are proving this to-day.

As to the public, what is due from us to it in these so-called days of enlightenment?

For the physician to fail, as he has in the past, in teaching preventive medicine, is as criminal as withholding from it curative medicine. In sanitation, in hygiene, and in all matters medical, we are our brother's keeper theoretically. Practically so far, we have sadly missed our calling.

What little knowledge of these subjects the public has acquired is not useful. It has come to it largely from limited, garbled, and imperfect statements in the lay press.

Some knowledge has come to it from boards of health, necessarily given arbi-

trarily, after disease had entered the home, rather than before.

Then there is a widespread belief still obtaining largely among the people, that the scourge of preventable diseases in their origin, is not human but divine. So also as to the origin of Christian Science and other allied frauds which have been a menace to public health.

This is an error self-evident to the physician, but not to the general public.

It is therefore the imperative duty of the physician to systematically and periodically instruct and enlighten the public, in public, on all matters pertaining to the prevention of disease, the conservation of life and health, and the exposure of all sorts of quackery and frauds which are a menace to the people.

Too many of our societies are languidly considering. It is time to act.

Whatever we give to the public will be returned many fold in effective allied work for needed medical and health reforms.

Leaving here the questions which deal more with materialism in student training and equipment, in society work and endeavor, in the enlightenment and education of the public, we come to the consideration of those betterments which make for nobility and honor in medical societies and members.

We are coming face to face with factors which have worked and are working in our professional life to-day, which, rightly dealt with, will bring to us strength, self-respect, and honor, but which, yielded to submissively, will bring slavishness, mutual distrust and decadence.

In medical society life there is a call to the higher planes, not only to those who have already adopted high ideals, but to those who have the desire to honor their high calling rather than sell it, like Esau his birthright, for a mess of pottage.

It is not a time to criticize the unessentials in our fellows. It is not a time for

looking for stain or spot on our brother's garments when we know full well that our own are not immaculate.

It is not the time, when membership is sought in our societies, for petty jealousies or fancied slights to rule the hand that holds the black ball. A black ball can be merciless as a musket ball. The smaller things of life never call for its use. Keep it for the gross breach in morals or ethics and even then deal with a man with such justice and kindness as may in time make him a better and more worthy man.

Paradoxically speaking, there are more ways of elevating a man than by knocking him down.

In everything we should remember that we belong to God's noblest profession, where we look for that honor which rebukes dishonor openly; for that justice which shows the scales at a balance; for that right which fearlessly smites wrong; for that mercy which tries to lift up the feeble and the weak.

In some societies retrospection and introspection will call to mind members who have been guilty of every sin and shortcoming which have been laid at the door of any man, who has ever at any time, sought admission to their fellowship; yet the time often comes when to such members respect is shown and even honors are given.

Sins of omission or commission are common to all.

As we need charity, so let us give it.

But here let it be said that charity has no call to shield two classes of men that bring reproach upon their profession: one, the abortionist found within our gates who is often a degenerate; the other, the slave, of alcohol, opium, and cocaine. Both should be driven beyond the outer walls until such time as they are fit, if ever, to practice their sacred calling.

Of the latter class, the number is appalling when we think of the human lives that are entrusted to their care.

In one small town, not one hundred miles away, four physicians until recently, served the community of six hundred. Of these four, three were confirmed drug habitues.

Such conditions should call from us the strongest condemnation and the earnest support of proposed legislation looking to the revocation of licenses in such cases.

Barring such perverts, we must, in order to be effective in our medical organizations, depend not only upon the good men in the profession, but upon the indifferently good and those not hopelessly bad.

During the War of the Rebellion, the Union was not preserved by the highly moral, or the highly religious, or the highly anything else. It was preserved by the people of all grades, who were fired with one consuming idea: "The Union must and shall be preserved." Differences were sunk.

Suppose a man does not come up to the ideal standard of which we boast. If we can't do such a man some good by admitting him to our ranks, we are not up to that standard ourselves. If we can't raise him to a higher plane, it is because we are not on that plane ourselves; we are not occupying the point of vantage.

Since there is good in every man, let us use a telescope when looking for the best in him. Leave to the microscope the discovery of the worst.

Today, two subjects come before us which assail our professional standing and self-respect.

In a broad way, one deals with ethics—a word of Greek origin meaning "custom" or "usage," but which means in our profession, an elaboration of the "Golden Rule."

The subject referred to is "Contract Practice," or the "Lodge Practice Evil," as it is sometimes called.

The most active agent in its promotion today, I believe, is the order of "Eagles."

It is doing injury to the medical profession. It is attempting to lower its high standards.

Recently a physician in another part of the state, who had taken up this work, and so had placed himself at variance with his county society, wrote to your Executive, asking whether he could hold his membership in the State Society and the American Medical Association, and still continue to do contract work. The reply expressed, perhaps, something of what should be said, and was in part, as follows:

"Do not look at the question in the light of what you can do or cannot do, and still retain your membership.

"There is a far more important question to be considered and settled than that of eligibility to membership in either State or National society, viz:—"What is the right and fair thing to do in order to do what is best for my patients, my professional brothers, and myself?

"Your patients should receive the best you can give, nothing less.

"Your professional brothers look for the best in you, and are pleased when they see it.

"Your professional honor and self-respect should always keep you at your best.

"Such work as you outline in your relations to the "Eagles" will never produce such results.

"The cost of acquiring a medical education is very great, as you know.

"The medical profession cannot stand for dollar physical examinations for insurance companies, and for cheap wholesale care of families for fraternal and other orders.

"Scant pay gives rise to scant service; that means the sick will not get the best medical service to which they are entitled. It means the physician will not give honest service because it will not be his best, as his best is not being paid for.

"The whole business leads to irritation on the part of the patient; fosters slipshod and dishonest methods on the part of the physician, and takes from him the respect of his brothers in the profession.

"Do not forget that the friendship of your professional brother is priceless. Do not forfeit it. Do not lose it for all else the world can give.

"The best, the closest, the dearest friends on earth, barring your own immediate family, should be those of your own professional household. Do not lose your grip on them."

The other subject which is doing wrong and injustice to the medical profession is: The lowering of life insurance fees for medical examinations, which has been put in force by many companies. Why should this be?

The world has never seen such equipment in medicine as it sees today. Such equipment, which fifty years ago only required six months at medical schools, now requires thirty-six; not double the time only, but the time multiplied by six.

What does this mean? It means for one thing, far better service given by medical examiners to the life insurance companies; it means that medical men are furnishing safer investments in the way of safer risks, to these insurance companies.

What reward does the physician get for this better service arising from these thirty months—virtually three years—of extra study and work?

What is his reward for giving one thousand days more of his life than formerly in unremunerative toil that he may serve humanity better? One thousand days during which he earns no money, receives no income? one thousand days during which his slender purse is emptied and, in many cases, has to be replenished by dealing, as it were, in "futures"—borrowing money to complete his course?



All this these insurance companies reward by cutting his fee.

What shamelessness, to virtually say: "Because you have worked longer and harder to give us better service, we wish to reward (?) you by diminishing the earnings to which you are honestly entitled." What injustice!

Why should there even be graded fees?

An insurance company calls for and expects a thorough, complete, honest examination, whether the amount of insurance applied for is one thousand dollars, or one hundred thousand dollars.

Are the questions to be answered more fully in one instance than in the other?

Is there one whit more information called for in one case than in the other?

Are the lungs of an applicant for a policy of one thousand dollars more easy of percussion and auscultation than those of the one applying for one hundred thousand dollars?

Is the examiner's hearing supposed to be less acute in listening for a heart murmur when the insurance asked for is one thousand dollars than when it is one hundred thousand dollars?

The logical inference to be drawn from the graded fee is this: "We, the Company, are asking for exactly the same information whether the amount of insurance is large or small, yet we distrust your honesty, therefore we will pay you for being really honest in your examina-

tions when the larger insurance is asked for."

Is this satisfying to your sense of honor and justice? No. Here, as in the "Contract Practice" work, commercialism deals in our services at the bargain counter, and the pawn shop.

This does not make for our uplift.

Unionism can teach us much today. It has lifted the man of few dollars and little education to a place where even scant service and poor labor can commend its price.

This the expert services and skilled labor of the physician are largely failing to do.

A betterment in conditions will come to the profession only through practical unity and a working idealism.

This oft repeated insistent note must still be sounded till we come to look upon the greater things, in a great profession, in a larger way; till the small things and the unessentials are lost sight of, by our working unitedly and as a whole for our common interests, and for our common good.

Harmony in feeling and co-ordination in action under a united profession, mean power, mean life, mean success, mean the elevation of the physician to the place where it was ever meant he should stand, the first and highest place among the sons of men.

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## THE METRIC SYSTEM

The advantages of the metric system over the present less convenient and accurate measurements used in medical prescribing are pointed out by W. A. Jolley, Boulder, Colo., who also gives details of methods to convert the measures now in use to the metric measurements. The convenience of the system is shown by a number of practical examples. He also gives a table by which the tablet triturates in common use can be prescribed according to the metric nomenclature, and show how to use this system in prescribing ointments and liquids. One advantage of the system is the facility with which it can be adapted

to the dosage required for children. Consider as 20 age of an adult and use that age as the denominator and the child's age as the numerator. Let the dosage for an adult be the total required in a mixture, containing 100 c.c., then allowing 5 c.c. for a teaspoonful, this will be the dose for a child 1 year old. For a child 2 years old twice as much and so on up to the adult. Actual practical work with the adaptation of the common measures to the metric equivalents will soon produce familiarity with prescribing by this method.—*Jour. A. M. A., May 18.*

## THE VENTILATION OF SCHOOL BUILDINGS\*

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THOMAS S. AINGE,Sanitary Engineer, Michigan Department of  
Health.

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It is extremely gratifying to note the interest which the members of the medical profession have taken and are taking in the subject of school hygiene, and your society is deserving of much praise for having set apart and made public this meeting for the consideration of one of the most important questions which come within the scope of preventive medicine.

The subject assigned to me by your committee is one of special interest, both to myself and to the department which I represent. It should be of equal interest to those who have charge of the educational institutions of our land, and to the parents of those who, for the common weal, are required to pass a very considerable portion of their youth in such institutions.

That the activities of the mind are, as a rule, impaired by a morbid condition of the body, and that anything which tends to a deterioration of the physical forces in the young is a handicap to education, are truths too well known and understood by the members of your profession to require even a passing comment.

Among the many causes which contribute to sickness among school children, it is believed that the school building and its management play a very important part. I will refer to this phase of the subject later in the paper.

Notwithstanding that the subject of school hygiene has been widely and repeatedly discussed, practically from ev-

ery standpoint, and numberless standards laid down for the proper sanitary construction and care of school buildings, the fact remains that in a large proportion of such buildings the requirements for good sanitation are woefully lacking in some one or more particulars, notably in respect to good ventilation. This brings us to the question as to what is comprehended by the term good ventilation.

In an occupied room, an approximation of the purity of normal outdoor air cannot easily be secured, nor maintained, without discomfort to the occupants, and a standard of permissible impurity has been adopted as the unit of ventilation. In normal air, the amount of carbon dioxide is slightly more than three parts in ten thousand, and this amount is nearly uniform in every quarter of the globe. But when a portion of this air is, so to speak, bottled up within an occupied room, by the process of respiration, the oxygen in the air is gradually used up in the oxygenation of the blood, and the products of this purifying process—principally carbon dioxide and water—are thrown off from the lungs. If a sufficient amount of fresh air is constantly passing through the room to dilute the products of respiration, so that the added carbon dioxide does not exceed three or four parts in ten thousand of air, and the change of air is accomplished without discomfort to the occupants of the room, the ventilation is said to be good. Any excess of carbon dioxide over six or seven parts in ten thousand of air is, therefore, an indication that the air is unfit for respira-

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\*Read before the Ingham County Medical Society, at Lansing, January 10, 1907.



tion, and ten parts will render the air distinctly harmful.

The amount of fresh air necessary to secure the proper dilution of the carbon dioxide in the air of a school room has been fixed at not less than 1,800 cubic feet per hour for each pupil; and for the proper distribution of this amount of air throughout the room at least 15 square feet of floor space and 200 cubic feet of air space for each pupil are necessary.

The several standards I have enumerated have been determined by careful experiment and calculation, and are accepted and used by sanitarians and others directly interested in the ventilation of school buildings, as the measure of the ventilation in such buildings. It should be remembered, however, that the amounts specified are minimum amounts, and that larger amounts of floor and air space, and a larger volume of fresh air, for each pupil, are desirable.

The intimate relation existing between the amount of air space and the volume of fresh air necessary for each pupil will be understood by a simple illustration. In a school room twenty-five feet long, twenty feet wide and twelve feet high, we have totals of five hundred square feet of floor space and six thousand cubic feet of air space, and such a room will afford the minimum amounts of floor and air space for thirty pupils. As each pupil will require at least 1,800 cubic feet of fresh air per hour, thirty pupils will require 54,000 cubic feet, and dividing this amount by the cubic, or air, space of the room (6,000), we have nine as the quotient. This means that the air of the room must be changed nine times in each hour, or about once in every seven minutes. If the number of pupils in this room be increased above the number for which it and the ventilation were designed, it follows that one of two things will result, the pupils will not have the requisite amount of fresh

air, or, providing the ventilating apparatus is equal to the demand,—which is not often the case—a greater amount of air will have to be forced through the room in a given time, to the probable discomfort of the pupils.

Having determined upon the number of pupils who may properly occupy a given room, and the number of times the air of the room must be changed to insure the required amount of fresh air for each pupil in a given time, the next question for our consideration is the method, or methods, by which this change of air may be effected. In passing, it should be stated that in the consideration of any plan for the proper ventilation of a building, no account should be taken of the changes of air which may be secured by the opening of doors, windows or transoms, and any building which depends, wholly or partly, for its ventilation upon such openings is not well ventilated. It should also be stated that, as the heating and ventilation of a building are, as a rule, inseparable, our consideration of the methods of ventilation will include also a consideration of the methods of heating.

The ventilation of school buildings is usually accomplished by the so-called natural method, in which air from outdoors is taken, or admitted, into basement rooms, heated by means of a furnace, or steam coils or radiators, and conducted from thence, by flues, into the rooms above, the vitiated air being removed, by another set of flues, to the outer air above the roof, or, as is sometimes the case in badly planned buildings, to the attic. In this method of ventilation the movement of air is due, principally, to the difference in the weight of two columns of air of equal size but of different temperatures; and the greater this difference the more rapid will be the movement of the air. As the temperature of the air in a vent flue will remain nearly constant, it follows that with varying temperatures of



the air outdoors, the velocity of air in the flues will be subject to wide variations. For this reason, in planning the ventilation of a building by this method, it is necessary to construct the flues large enough to do the work required of them when the difference between the temperatures of the indoor and outdoor air is not greater than say twenty-five degrees, and to provide for a regulation of the draft in the flues in the coldest weather, in case the movement of air in the rooms should prove to be too rapid for comfort.

In large buildings, and in any building where a large number of pupils congregate in one room, the natural method of ventilation cannot be relied upon, and recourse must be had to a fan, or fans, for forcing air into and out of the rooms.

I will now consider, briefly, some of the details upon which much of the safety and success of the ventilation of any building depends. The air supply should, in every case, be from outdoors, and never from basement rooms, unless they are specially prepared and set apart for that purpose; neither should the vitiated air of the rooms, as in some systems, be conducted downward to the basement and re-warmed and discharged back into the rooms. The location of the fresh air openings should be made with due regard to their isolation from possible sources of contamination. They should never be on a level with the ground outside, because they would thus become receptacles for dust, possibly infected, and might, and if located in a sidewalk would, at certain times, become receptacles for the sputa of passers-by, some of whom might be suffering from pulmonary troubles. From the fresh air openings in the outer walls, the fresh air should be conducted to the heating apparatus in air-tight metallic tubes, or ducts, or collected in fresh air rooms in which the air is to be warmed, and which are usually adjacent

to the outside walls. The fresh air rooms should be well lighted; have screened openings to the outer air; smooth and impervious walls, ceilings and floors; tight fitting doors; and be accessible only to the person in charge of the heating apparatus. Common sense would dictate that such rooms should not be used for storage purposes, nevertheless it is not uncommon to find in such rooms an accumulation of truck of all kinds that would prove a veritable harvest for a junk dealer.

The method of warming the fresh air will have much to do with the healthfulness of a school building, and should receive the most careful consideration. It is gratifying to note that the once popular method of heating school buildings by means of furnaces is giving way to the more hygienic method of heating by steam. The passing of air over the excessively hot, and sometimes red hot, surfaces of a furnace, by which it is burned, and deprived of a large percentage of the contained moisture, has been declared by a prominent medical practitioner, who is also a recognized authority on school hygiene, to be "a most active cause of nervous diseases and diseases of the nose, throat and lungs." To this I would add that, in the event of defects in the heating surfaces of a furnace, which must sooner or later occur, or in case the heating surfaces are heated to redness, there would be a strong probability of the contamination of the air supply by poisonous furnace gases.

Where steam heating is used, whenever possible, the heating stacks should be in a fresh air room, such as I have already outlined, and not, as is often the custom, in boxed enclosures in some dark or out of the way place in the basement, where they, together with the ducts communicating with them, may remain undisturbed for years as collectors of dust and the homes of vermin.

The use of wooden ducts, particularly in basement rooms, for the conveyance of fresh air to or from the heating apparatus, is very objectionable, because the inevitable shrinkage of the wood will sooner or later form openings sufficiently large for the passage into the ducts of air from undesirable sources.

The ventilating flues should never be on outside walls, because the air in them would be cooled down, in some cases to the point of stopping, or even reversing, the air currents.

Registers for the supply of fresh air and the removal of vitiated air should, as a rule, both be on the same side of a room, and located, as nearly as possible, opposite to the most exposed wall of the room, or to the side having the largest amount of glass surface.

The registers for the supply of fresh air should be in the walls, about six or seven feet above the floors. They should never be in the floors, because they would thus become receptacles for dust, and possibly sputa.

The vent registers should be in the walls, at the floor levels. They are sometimes placed in outside walls for the purpose of preventing air which has been cooled by contact with the walls or windows from spreading across the floors. Such a location of the vent registers is objectionable, because it allows the fresh air to pass out of the room before it has made the circuit of the room, and leaves a comparatively dead air space in that part of the room nearest to the fresh air opening. Were it desirable to remove the vitiated air by registers on the coldest sides of the rooms, there would be serious difficulties in the way of its accomplishment. The flues to which the registers were attached could not be carried, vertically, on or in the outside walls, because the air in them would have little or no movement, and there would probably be a down draft in the very cold weather.

Further, if the joists were laid parallel to the walls in which the registers were to be placed, it would not be possible, without the use of furring strips, to conduct the vitiated air under the floors to flues on inside walls. Further, if the joists were laid at right angles to the walls in question, and ducts, connecting the registers with the flues on inside walls, could be constructed between the joists, the two square turns which the air would have to make in each duct, together with the distance the air would have to travel horizontally, would tend to a sluggish flow of air in the ducts and flues.

If the air entering a room is of the proper temperature, and its distribution throughout the room sufficiently rapid, the cooling effect of the outer walls and windows will not, ordinarily, be perceptible to the lower extremities of the occupants. In rooms having considerable exposure, or very large windows, it would be well to place steam coils, or radiators, on the most exposed sides of the rooms.

In preparing the plans for a school building, the mistake is very frequently made of providing ventilating flues of the same area for rooms of the same size, but on different floors. That this is a wrong method, I will endeavor to show.

With a difference between the temperatures of the indoor and outdoor air of twenty-five degrees, a flue forty feet high, for the ventilation of a room on the first floor, will remove about 20,520 cubic feet of air per hour for each square foot of flue area; a flue thirty feet high, about 17,820 cubic feet; and a flue twenty feet high, about 14,520 cubic feet. (In each of these estimates allowance has been made for friction.) In the case of two schoolrooms, of corresponding size, and one of which is located immediately over the other, if the vent flues of both rooms have the same area, and



the vent flue from the lower room is capable of securing the proper movement of air for thirty pupils, the vent flue of the upper room will provide ventilation for but twenty pupils, or thereabouts.

In general, the velocity of air in vent flues on the first floor should be about five feet per second, and on the second floor, about four feet per second; and for thirty pupils in a room, the vent flues of the first floor rooms would require sectional areas of about three square feet, and for the second floor rooms, about four square feet. In the case of the fresh air flues, the rule is reversed, the flues of the first floor rooms must be proportionately larger than those supplying the rooms on the second floor. The registers should, in every case, be about one-third larger than the flues to which they are connected.

For the reason that the ventilation of a building may be interfered with, in some instances very considerably, by adverse conditions of the weather, the provision of a few square feet of steam coils, or radiation, in each vent flue would be a wise provision.

With the exception of those ventilating plants where the air is moved by means of a pressure fan, and in the Smead system, there is seldom any special provision made for the regulation of the temperature of the air in school-rooms. One day the room may be too warm for comfort, and the next day, with a fall in the temperature outdoors, the temperature may be just right, or too low. Again, upon the assembling of the pupils at the beginning of any session the temperature may be quite comfortable, but after the room has been occupied for some time, there will be a sensible, and probably uncomfortable rise in the temperature, and the teacher will do just what any other person would do under similar circumstances—open the windows, and by so doing, probably

and unintentionally give one or more of the children a good start on the way to a spell of sickness.

Where the rooms are heated entirely by warmed air, the temperature should not be lowered by closing, or partly closing, the fresh air registers, because, in so doing, the air supply would be diminished, or cut off entirely. Dampers for the mixing of warm and cold air should be provided at the base of each warm air flue, and they should be under the control of the teacher in each room.

Where the rooms are heated partly by warmed air and partly by direct heating coils, or radiators, the temperature may usually be controlled by the direct radiation.

This is a phase of my subject which, if the time at my disposal permitted, I should like to consider at greater length, because school-rooms too often partake of the nature of drying rooms.

For the benefit of those who may not be familiar with the Smead system of ventilation, in which the so-called dry closets form a part of the ventilating apparatus, I will give a brief description of the system. The fresh air is conducted, through basement rooms set apart for the purpose, to furnaces, and from thence to the rooms in brick flues. It is intended that the vitiated air shall pass out of the rooms, through registers in one or more walls, downward into the spaces beneath the floors, and from thence, in large brick flues, downward to the basement, through the closets, and, finally, into large vertical flues, extended to the roof, and in which fires are supposed to be kept burning continuously. If the system is properly installed, and kept in good working order, there will probably be a movement of air, more or less sufficient, in the direction intended. *But*, if the fires in the main vent flues are allowed to go out, or the weather conditions are adverse to good ventilation, there will be a strong



probability of a sluggish movement of air in the rooms, and, in many instances, a reversal of the air currents, by which air which has been in contact with the closets will be discharged into the rooms. Another factor which is constantly operating against the free movement of air in rooms ventilated by means of this system is the friction due to changes in the direction of the air currents. It has been determined that the velocity of the air current in a duct, or flue, will be diminished one-half, or nearly so, in making a square turn. To this should be added the friction due to the contact of the air with the sides of the duct, or flue, which will vary according to the smoothness or roughness of the materials of which they are constructed, or with which they are lined. In the Smead system, the air in passing from a room to the main vent flue makes at least four square turns, and numberless smaller turns in worming its way over and between the joists, and comes in contact with many rough surfaces in its passage.

It is contrary to nature for air of the temperature usually found in school rooms to pass downward, as in the Smead system, unless it is, so to speak, pulled down, and the moment the pulling force is weakened the tendency of the air in the vertical flues connecting the rooms with the closets will be to rise, and flow back into the rooms. That this is what has occurred, and that quite frequently, in schools equipped with this system, is a matter of history, and has resulted in the wholesale condemnation and widespread disuse of the system many years ago. Lansing is one of the few cities which have not yet discarded this dangerous method of ventilating the public schools.

But the principal danger from the Smead system lies not so much in the stagnation of air in the rooms, or even in the backflow, into the rooms, of foul or noxious air, as in the possibility of

the distribution of infection throughout the building in which it is used, and the infection of the outdoor atmosphere in the vicinity of the school building. In this connection I wish to quote, briefly, from the writings of two or three authorities, the names of most of whom are well known to the people of this State:

Doctors J. H. Kellogg and John Avery, a committee of the Michigan State Board of Health, who made a careful investigation of the Smead system, as installed at Detroit and Toledo, stated that

"In the light of the most recent researches, the drying of fecal matters, which is supposed to occur in the dry vault, does not destroy the germs of disease which may be contained in them; and the scattering of these germs, through their discharge into the open air, may be conducive to the wide dispersion of the infectious elements of diphtheria, typhoid fever, and possibly other grave maladies. The danger would, of course, be greatly aggravated in times of epidemics of any of these diseases."

Doctor V. C. Vaughan, Dean of the Medical Department of the University of Michigan, and the present president of the Michigan State Board of Health, has stated his objections to the Smead system to be briefly as follows:

"The continuous and uninterrupted flow of air in a schoolroom is impossible. Doors must be opened and counter currents will be established. Such currents, even when they exist only momentarily, coming over dried fecal matter, will be likely to convey minute particles with them.

"By drying the fecal matter in the building, any germs that may be present are placed in the most favorable condition possible for distribution through the air.

"Germs are living organisms and you cannot dilute them any more than you can dilute a horse or a rose bush.

"No one would want his children to attend a school if there should be the corpse of one dead from diphtheria in the cellar. No one should want his child to attend school when there is a room in the cellar filled with feces, which are

liable to be filled with the germs of typhoid fever or other diseases."

M. A. Veeder, M. D., of Lyons, N. Y., a well-known authority on matters pertaining to the subject of Preventive Medicine, writing to the Michigan Department of Health, says:

"We have been having an experience with diphtheria since the opening of Lyons Union school, that appears to indicate that the vaults in the cellar of the building containing excrement dried by air from the rooms in accordance with what is known as the Smead system may become the source of infection. The material which these vaults contain would seem to become a veritable culture medium for the bacillus of diphtheria, the vapors given off containing its spores or toxins the same as sewer air. In case that the ventilating fires go down, these vapors have ready access to every room in the building. \* \* \* At Rochester, N. Y., diphtheria has been endemic for years, and at times large numbers of cases have been traced, as I am informed, to schools having the Smead system."

Referring back to the subject of the influence which school buildings and their management exert upon the health of the occupants, it is probable that the present unsatisfactory and dangerous condition of many school buildings will continue until reliable statistics can be produced which will establish a connection between certain diseases and unsanitary conditions in the school buildings where the diseases may be contracted. An instance of the necessity for such statistics was recently brought to my notice by a letter in a local paper in which the writer, speaking of the Smead system, made the statement that he believed the health of the pupils in schools where this system is in use will compare well with that of those in schools having other systems of heating. In the absence of statistics relative to the comparative health of the pupils in schools heated and ventilated by different methods, a comparison of the health of the

pupils in a Smead school building with that of the pupils in a school insufficiently or improperly ventilated by some other method, would be manifestly unfair.

The medical inspection of schools, as carried out in many of the large cities, is a valuable aid in the restriction and prevention of the dangerous diseases, and by it physical defects in the children are often discovered and remedial measures suggested, but it is confined principally to diseases of a communicable nature, and does not, usually, comprehend the conditions which affect the general health of the pupils.

The nearest approach to a model plan for the inspection of the public schools, which I have in mind, may be found in the city of Philadelphia, Pa., where the medical inspection of the pupils is supplemented by semi-annual inspections of the school buildings, with special reference to overcrowding, temperature, methods of heating, illuminating and cleanliness of the rooms; the general arrangement and ventilation of the coat rooms; the cleanliness, lighting and ventilation of the cellars; sources and purity of the drinking water; toilet accommodation; the size and condition of the playgrounds; and the nature and quality of cakes, candies and fruits sold in stores adjacent to the school buildings. The reports of these inspections are handed to the boards of education for their consideration.

To the records of the medical inspections, both of the pupils and school buildings, I would suggest the addition of records of careful observations, by the teachers in every school room, relative to the general health of the pupils; and in making this suggestion I am aware that it would not always be an easy matter for a teacher to ascertain the nature of the various ailments which might keep children out of school, but it should not be very difficult for a teacher to keep a brief record of each



such absence, and, whenever possible, the nature of the sickness, together with observations as to the mental activity and cheerfulness of the scholars generally.

Except in times of epidemics of dangerous diseases, a comparison of the sickness in the several schools of a large city would probably afford an indication of the comparative healthfulness of the several school buildings, and assist in the location of unhealthful conditions.

A careful study of morbidity statistics; such as have been suggested, in conjunction with the results of reliable tests relative to the heating, ventilation, sewerage, etc., of any school building would, I believe, furnish a valuable contribution to the study of the causation of diseases, and constitute a powerful argument for better hygienic conditions in our schools.

The necessity for legislation, relative to the sanitary requirements of school buildings, is indicated by the fact that thirty-three states have legislated upon almost every phase of school hygiene, and known conditions in many of the schools in this State serve to emphasize the necessity for better and more uniform methods of heating and ventilating, which could best be secured by preventive legislation.

In the State of New York, the following law has been enacted for the proper ventilation of school buildings:

"Sec. 1. No school house shall hereafter be erected in any city of the third class or in any incorporated village or school district of this state, and no addition to a school building in any such place shall hereafter be erected the cost of which shall exceed five hundred dollars, until the plans and specifications for the same shall have been submitted to the commissioner of education and his approval endorsed thereon. Such plans and specifications shall show in detail the ventilation, heating and lighting of such buildings. Such commissioner of education shall not approve any plans for the erection of any school

building or addition thereto unless the same shall provide at least fifteen square feet of floor space and two hundred cubic feet of air space for each pupil to be recommended in each study or recitation room therein, and no such plans shall be approved by him unless provision is made therein for assuring at least thirty cubic feet of pure air every minute per pupil, and the facilities for exhausting the foul or vitiated air therein shall be positive and independent of atmospheric changes."

Somewhat similar provisions are contained in the State law of Pennsylvania relative to the ventilation of schools in that state.

As showing what would be the probable result of a systematic inspection of the ventilation of the school buildings of this state, I would refer, briefly, to the results of investigations of this nature in our sister States of Ohio and Indiana.

In an investigation by the State Board of Health of Ohio, relative to the ventilation of school buildings in that state, exclusive of those in Cleveland and Cincinnati, there were found 1,235 school-rooms (over twenty-one per cent) in which each pupil had less than the minimum amount of floor space, and 677 school-rooms, outside of the city schools, in which each pupil had less than the minimum amount of air space.

In a similar investigation by the State Board of Health of Indiana, it was found that thirty-seven per cent of the school-rooms were imperfectly ventilated; sixty per cent badly ventilated; and none well ventilated. It was estimated that 450,000 pupils in the schools of that state were obliged to breathe bad air during the time they were in school; that eighty per cent of the pupils suffered from colds or coughs in a single term; and that ninety per cent of these ailments were due to breathing bad air. It was further stated that, as twenty per cent of all deaths from consumption in that state are in the age period of 15 to 25 years, the probability that the lungs of



the decedents were prepared for the consumptive germ by breathing bad air at school is very great. (In Michigan, about twenty-five per cent of all deaths from tuberculosis occur in this period.)

In conclusion, I wish to state that the failure of many ventilating plants to do the work they are expected to do may be charged to the ignorance or carelessness of the janitors, or other persons in charge of the plants.

For the intelligent working of the

ventilating apparatus of school buildings, it would be well if all connected with the management of such buildings—the members of the school boards, the superintendents, the principals, the teachers and the janitors—were given an object lesson in the general principles of good ventilation, and in the workings of the ventilating apparatus in their particular building. Some of them would then be in a position to know whether or not the plant was being properly managed.

### Discussion.

**Dr. Clara M. Davis, Lansing:** In discussing from the point of view of a physician the subject so ably handled by Mr. Ainge, I shall make use of very few statistics, and of none regarding capacity of vents and of flues, their proper proportions for rooms of various sizes, etc. These details belong to the province of the sanitary engineer.

But it seems to me that physicians who are properly interested in the health of the community should be alive to their duty in impressing the public with the need of adequate school ventilation by showing the far-reaching evil consequences of defective ventilation on the proper development of school children, and its importance as a predisposing factor in the acquirement of respiratory and spread of contagious disease; and that they should so familiarize themselves with the *general principles* governing ventilation of large buildings and the special points in the problem of school ventilation, as to enable them to be fairly intelligent critics of such systems as it may be proposed from time to time to install.

Ventilation of schools has always been more or less of a bugbear question, and we probably practise self-deception and accept the will for the deed more often with regard to this than with regard to any one other sanitary feature of our schools.

A system is put in with little investigation as to its real merits, mentioned with pride when the building is dedicated, and very slight concern shown afterwards as to whether it works well or ill, or even works at all. This is true of hospitals as well as schools, and in more than one the speaker has seen elaborate systems of registers

for ventilation marked, "Open in summer," "Open in winter," etc., but which no one opened or closed from one year's end to another.

The public has learned that cheap, shoddy plumbing is, in the end, expensive, and a nuisance. School boards are thoroughly alive to the fact that school buildings must be well lighted and heated and that for proper plumbing, lighting and heating, three things are requisite:

1. A substantial outlay at the outset to cover installation cost;
2. A fund for running expenses that will provide for prompt and efficient repairs when needed;
3. A certain amount of care.

But with all out-of-doors full of fresh air, money comes grudgingly for ventilation and its maintenance, and the temptation is to economize here where no show is made, and spend the money where the passing tax-payer may see it. Failure to meet some of the three requisites above mentioned, seems to me to account for the dissatisfaction with many of the systems of ventilation in use, especially the third item, "a certain amount of intelligent care." We do not expect heating, plumbing, etc., to run themselves,—why ventilation? Yet we demand often of this feature absolute automatism in all kinds of weather and under every condition.

It may be well at this point to go over a few of the conditions of the ventilation problem which are more or less peculiar to school buildings, viz.:

1. Rooms of approximately the same size and accomodating from thirty to fifty pupils.
2. To be occupied six hours in a day, five days a week, or thirty hours per week.
3. Buildings to be used the nine coldest months in the year with variations in out-door temperature of from 0° to

95° F., and with a velocity of almost nothing up to fifty miles an hour. 4. Buildings to be used in atmospheric conditions of extreme dryness and of moisture, amounting to saturation. 5. Since pupils are assigned seats and not allowed to change them, ventilation must be secured without opening of doors and windows, which would cause drafts, i. e., must be artificial.

Now the ventilation problem is, as Mr. Ainge has made clear, impossible of complete divorce from the heating problem, and the expense of providing fresh air at a proper temperature is largely the expense of heating it. Considering this, and the five conditions above mentioned, what, then, are the principles to guide in selecting a system and what systems at the present time best meet them?

1. Rooms should be ample in size for the number of pupils, so that in the very warmest weather, fair ventilation by means of windows and doors (i. e., without expense of heat) may be easily maintained, and in cold weather the air may not require too many complete changes per hour to be pleasant.

2. Since school rooms are occupied by their usual number of occupants but thirty hours out of the one hundred and sixty-eight in the week, or not quite one-fifth of the time, for reasons of economy, the greatest possible independence of heat and ventilation is desirable; since heat must be kept up the entire time and to the same degree, for as much of the time as any one remains in the building, while ventilation is needed only in school hours.

3. Ideal ventilation should furnish fresh air neither cold enough to produce chilly drafts nor so hot that it is "burned;" but at a temperature between 60° and 80° F., another requirement best met by some independence of ventilation and heating.

As to how the different systems meet these requirements:

1. Various Gravity Systems.—With these, as Mr. Ainge has shown, since they depend on differences in temperature for the circulation of air, where there is no heat in the building, there is no ventilation. Little heat, little ventilation. And their efficiency is so influenced by outside temperature and atmospheric conditions of wind velocity and moisture, that they may be efficient a half, a third, nearly all, or none of the time. Their attractiveness lies partly in their low initial cost and expense of maintenance, partly because they are the most automatic and require least attention.

2. Indirect Heating With Fans.—These systems, as Mr. Ainge described them, are vastly better, and give, when properly installed, adequate ventilation. They are not ideal in that in the coldest weather the air, since it is used for heating as well as ventilating, must be very hot, and the fans must be run all the time the building is heated; i. e., one hundred and sixty-eight hours in the week, when ventilation is needed but thirty hours.

3. Direct Heat by Radiators and Ventilation by Fans.—In this method, fans blow in air heated in steam coils in the basement to 60° or 70°. The fans are used only when the building is occupied, thus making it a much more economical system than the preceding; while the independence of heat and ventilation permit the placing of radiators along the outside walls, so that rooms are more evenly heated. Also the fresh air furnished is not superheated. The speaker is informed that this system is in use and giving great satisfaction in the new Engineering Building in Ann Arbor.

In conclusion, a plea for a more rational and systematic way of conducting the erection of school buildings seems to the speaker to be of greatest importance, and in this connection, the Reports of the Boston School Commission for the years 1901-1906, will be found most instructive. After a tour of careful investigation of public school buildings in all the principal cities of the United States, and the accumulation of a vast amount of data, bearing on the especial features of such buildings, they have arrived at a basis of cost per cubic foot, which they figure at twenty-two cents, including all fixtures, grading, etc., and a cost per pupil to be accommodated ranging from \$130.00 to \$175.00, according as the building have many or few rooms. Of this cubic foot cost, the proper proportions for building, proper heating, ventilating, fixtures, etc., have been worked out, the idea being to obtain a type of building specially adapted to their purpose, with the greatest economy consistent with the highest efficiency.

Architects draw plans in accordance with these bases provided by the Commission, and the results are well balanced buildings, in which no sanitary feature is sacrificed to showy ornamentation or extravagance incurred by erecting buildings not well proportioned in any of their arrangements to care for the number of pupils they are designed to accommodate.

When school boards in general adopt as scientific a way of building school houses, there will be small need for physicians or any one else to concern themselves about their sanitary features.

## THE TREATMENT OF CANCER\*

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W. T. DODGE, M. D.,Surgeon to Mercy Hospital, Big Rapids

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After many years of discussion concerning the nature of cancerous disease, particularly as to whether it is primarily a local manifestation of a constitutional affection or a local tissue change which in time invades the whole organism, the latter proposition has come to be generally accepted by the profession. It then follows that if all cancer cells are removed from the body, a cure of the affection will be made. Whether or not this can be done in a given case depends upon how early the attempt is made and upon the location of the new growth. In women malignant growths are most frequently located in the mammary gland and cervix uteri. Extension of the disease occurs through the lymphatics and on account of the intimate relation of the lymphatic vessels and glands and their abundant supply to the uterine cervix, extension of malignant disease from that organ takes place very rapidly, and very rarely can all the disease be removed without endangering the ureters. One of the most distinguished surgeons of the country recently informed me in private conversation that he did not have a single case of cervical cancer alive after two years following hysterectomy. He added that he had several cases alive for longer periods than that when he had treated the cases with chloride of zinc and that he no longer recommended hysterectomy in these cases. Whether surgeons generally will agree with this proposition or not I do not know, but certain it is that no safe operation has yet been devised

that gives a reasonable prospect of removing all the disease from this region. Not so when the uterine fundus is the primary seat of the lesion. Practically no lymphatic vessels lead from the fundus and an early hysterectomy may reasonably be expected to afford a cure.

Cancer of the breast has for many years been a reproach to the profession. Following the ordinary operation of removal of the gland alone, a return of the disease may confidently be expected to take place in a few months and ten years ago surgeons had little more faith in effecting a permanent cure than they now have in the case of the cervix. The introduction of the Halsted operation and its modifications has, however, changed all that, and now, if the case is received early enough, and the operation performed is sufficiently radical, a large percentage of permanent cures can be effected.

Leading from the breast are several chains of lymphatic vessels. One chain leads to the skin covering the organ and so all of the skin over the gland must be included in the removal. Other lymphatics lead to the sheaths of the pectoralis major and minor muscles and so the original radical operation involves complete removal of these muscles.

Murphy has pointed out that as the lymphatics are situated only in the sheaths of the muscles it is sufficient to divide the muscles, remove the sheaths and after cleaning the axilla, unite the muscles by suture so as to cover the axillary vessels and thus better preserve the functions of the arm. In any event,

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[Read before the Lapeer County Medical Society.]



the axillary fat should be entirely removed and with it all the axillary lymphatics. If the operation is done thoroughly by one who has had experience and training in the operative procedure, and if the disease is of recent date, the prospect of removing all the cancer cells is excellent.

In recent years the Finsen light, the X-ray and radium have been much vaunted as cures for cancer. At first, we had reason to hope that a great boon had been given to cancerous suffering humanity and that the surgeon's knife in this disease would no longer be required. In this we have been disappointed. The light treatment has little effect upon the primary cancerous nodule in most cases and when it lessens its size, as it sometimes does, the increased liberation of poisonous products and their elimination through the kidneys, irritating these organs, is most injurious to the system. In a few cases the light treatment has no effect at all and even sometimes increases the rapidity of growth. So no rule can be laid down that will generally apply; each case must be treated by itself and effects carefully noted. In most cases after removal of primary focus of disease the X-ray has a positive effect in removing any cancer cells remaining and thus assisting materially in effecting a cure. If the disease is located upon the surface of the body as in the mammary gland, this favorable action may be more confidently looked for than if it is situated in the interior of the body. I have so far seen no favorable action in cases of uterine cancer. Cancer of the stomach is particularly favorable for operative interference if the case is undertaken early. Cuneo has worked out the arrangement of the lymphatic absorbents of the stomach and shown that normally no lymph glands exist to the left of the middle of the greater curvature and that the lymphatic circulation of this area is

from left to right. He also showed that the lymphatics of the lesser curvature are in the wall of the stomach itself. Consequently, as Mikulicz has pointed out, all the lesser curvature should be removed to the gastric artery.

W. J. Mayo, in the *Journal of the American Medical Association* for April 7, 1906, describes and beautifully illustrates an operation that conforms to the requirements of Cuneo's lymphatic discoveries. By ligating the left gastro-epiploica, gastric, superior pyloric and gastro-duodenalis arteries, the operation is rendered bloodless.

Appropriate clamps are applied to the stomach after the omental attachments are tied off and the stomach divided. The cut surface of the stomach is sewed up with double rows of continuous suture and after removing the mass, if the duodenum can be easily approximated to the under surface of the stomach, an anastomosis is there made after the manner of Kocher. If the ends cannot be approximated without undue tension, the duodenum is closed by a purse-string suture and an anastomosis is made between the jejunum and posterior wall of stomach about three inches from the divided duodenum. This last method is known as Billroth No. 2.

Of 313 cancers of the stomach operated on by the Mayos up to February 1, 1906, only 26 per cent were early enough to permit of radical extirpation. Of these they have only twenty-two who were operated three years ago, of whom four did not survive the operation and five are living three years, or 22.7 per cent and 18.1 per cent alive and well over three years, a showing which compares well with the operative results for cancer in other parts of the body.

These statistics emphasize the necessity for early diagnosis in cancer of the stomach if cure is to be hoped for. Precancerous symptoms and especially ulceration is generally present, and more

exact methods of diagnosis in use among general practitioners will send an increasing number of favorable cancer cases to the surgeons.

A great many exploratory operations must be made in both cancer of the stomach and breast, if all cases are recognized sufficiently early; and when cancer is recognized the successful operator, the one securing best statistics, will be the one who knows the location of the neighboring lymphatic circulation and who boldly removes all the lymphatic vessels that can possibly carry infection from the seat of disease.

Last month a case was referred to me by my colleague, Dr. Spoor, the history of which he has kindly written for me to incorporate in this paper. I also show you the specimen removed:

"On the 6th of June, 1906, Mr. M., age 55, came to my office complaining of stomach trouble and gave the following history:—Had been a strong, healthy man until he had an attack of the 'grippe' last March and was treated by a local physician for almost six weeks, when his cough and other symptoms subsided and his stomach commenced to bother him. His local physician then gave him some medicine for his stomach. This was about the middle of April. After taking the stomach medicine he could notice no improvement so went to taking patent medicine until he called on me the 6th of June. At this time he complained of a burning sensation in the pit of the stomach which was exaggerated an hour or two after taking food. The pain had never been excruciating. On two previous occasions some watery stuff had come up, but he had never vomited, but had felt nauseated. He said he had been working some, but felt weak and his food did not seem to do him any good. Since March he lost considerable weight, but this he believed was due to his six weeks' illness from the 'grippe.' I gave him some Papain and Sodii Bicarbonate, and also some Tincture Nux Vomica, Fluid Extract of Ergot and Compound Tincture of Gentian to increase motor power of the stomach and requested him to have a stomach analysis made if he felt no improvement. The next day he sent for me and said he could not take the medicine as it caused him so much pain

and vomiting. I gave directions for a test breakfast to be given the next morning, when I pumped out the stomach contents and found dried beef he had eaten the day before together with all the test breakfast. On physical examination I also felt a movable tumor that followed the movements of the diaphragm. Stomach analysis showed complete absence of free hydrochloric acid, large quantities of lactic acid, Oppler-Boas bacilli, epithelial cells and some pus. I at once made a diagnosis of cancer of the stomach and advised an immediate operation.

Patient was operated on by Dr. Dodge who removed a growth that completely encircled the pyloric end of the stomach and extended along the greater curvature 5 inches, and along the lesser curvature 3 inches. There was also a cauliflower mass on the inside of the stomach just above the pyloric ring, about the size of a large plum which acted like a valve and caused the obstruction. A considerable portion of the stomach was removed which measured 8 inches along the greater curvature and 5 inches along the lesser curvature, on account of the extensive growth. A microscopical examination of the growth shows it to be a carcinoma with a great deal of round cell infiltration and evidences of degeneration."

In this case, I was able to do the Kocher operation. Urinary examination previous to the operation on several occasions showed normal urine. Nevertheless, acute parenchymatous nephritis followed the operation. He had no stomach symptoms, did not vomit, had no abdominal distention nor pain, but developed high temperature at once and urine showed casts and albumen in abundance. I gave him large quantities of normal saline solution under the skin and per rectum and on the second and third days gave considerable fluid by the stomach which was retained. Seventy-two hours following the operation he died of uremic poisoning. We did not get an opportunity to hold an autopsy.

I append the report of a few cases that illustrate the results from radical operations assisted by subsequent X-ray exposures.



Cast 1. Mrs. M., Remus, Mich., admitted to Mercy Hospital Sept. 5, 1901, bringing with her a letter to me from one of the leading surgeons of Michigan advising the removal of a bunch in her breast which he believed to be non-malignant. I had previously advised a radical operation in this case, feeling certain that the tumor was malignant, but upon the return of the patient with this eminent authority against radicalism, I consented to an exploratory incision. I found the growth to present all the characteristics of cancer and so removed the gland, the husband who was present declining to consent to removal of the muscles and lymphatics. The specimen was sent to Dr. A. S. Warthin at Ann Arbor, who reported that it was a carcinoma in a secreting mammary gland. The following spring the patient returned to me with recurrence in three places in the skin. She was also pregnant, and instead of submitting to another operation as I advised, went to a cancer quack in Fort Wayne. Subsequently, after she had suffered much from the pain of caustic paste application, I had an opportunity to point out the inevitable result if she persisted in such treatment. Her husband then consulted eminent surgeons in Grand Rapids, Ann Arbor and Saginaw and obtaining in each place confirmation of my opinion, sent her back to the hospital, and on March 1, 1902, I removed the recurrent masses which were then suppurating from the action of the caustic, together with the pectoral muscles and the lymphatics of the chest and axilla. So much skin was removed that a large area had to be covered with skin grafts. An abortion occurred within a few hours after the operation and before the wound was healed, small hard nodules appeared in the skin near axillary border. X-ray exposures were at once commenced and repeated daily for several months. No burns were produced and after a few exposures the nodules disappeared. Patient was discharged June 7, but returned every month for nearly a year to receive X-ray treatment. She is at present in perfect health, more than four years following the last operation and five years since the first appearance of the cancer.

Case 2. W. P., Fremont, Mich., admitted June 19, 1902, with cancer of the penis. The neighboring glands were enlarged and I regarded the case as too far advanced for successful removal. X-ray treatments were given daily and the large ulcerating cancerous mass melted away like snow under the rays of the sun. In fact, the whole

organ melted away, but the ulcerated surface showed no indication of healing and much suffering was produced by the suppurating glands and burrowing of pus into the scrotum. In August, 1902, I removed the whole mass, including the enlarged glands, scrotum, testicles, and remains of penis, picking up the urethra and attaching it to the skin margin. On account of the extensive suppuration in the inguinal region, it was not possible to remove all of the glands, and I had little hope that the operation would arrest the spread of the disease. The X-ray exposures were continued until October, when the patient appeared to be perfectly well and was discharged.

At the present time, four years after he came under treatment, he is in good health with no sign of recurrence. The beneficial effects of the X-ray in this case cannot be doubted.

Case 3. Mrs. F., Marlette, Michigan, admitted to Mercy Hospital, Aug. 4, 1902, with cancerous growth in right breast and evidence of enlarged axillary glands. Radical operation was done at once and patient discharged on Aug. 27. She took elsewhere a long course of X-ray treatment, and informs me that there has never been any sign of recurrence and that she is now in excellent health.

Case 4. Mrs. D., Cheboygan, Michigan, admitted to hospital Dec. 6, 1904, with cancerous nodule in right breast. This nodule had been present three years and the lady had been almost constantly treated with the X-rays by Dr. Marks of Cheboygan. The exposures had resulted in reducing the size of the tumor, but had not succeeded in removing it. I performed the radical operation, removing the overlying skin freely, so as to require considerable grafting, and the patient so far is in good health with no sign of recurrence. The X-ray exposures undoubtedly had a restraining effect upon the disease in this case. In all these cases the diagnosis was confirmed by the microscope.

I have selected these cases for report because four years or more have elapsed in each case since the appearance of the disease and institution of treatment and the results have not heretofore been equaled in my experience. I have had other cases that as yet show no signs of recurrence, but the time is too short to make that fact of value. In the practice of other surgeons, I have seen sev-



eral cases of cancer of the breast during this time. When something less than total extirpation was done, and in every case that I can now recollect, death has occurred from general cancer within a few years, notwithstanding that X-ray treatment followed the operative work. So, I believe that incomplete operations in cases of cancer are not justifiable and that we are not justified by anything the X-ray has yet done in making use of it as an excuse for not doing proper surgical work. I have had cases of internal

cancer and cases of epithelioma of the face and lip that proceeded rapidly to a fatal issue in spite of operation and prolonged X-ray exposures, but such experience is not rare in the history of this disease; while reports of failures are oftentimes more instructive than successes, I do not think that applies to the subject of the treatment of cancer. Literature is full of failures to cure cancer and the profession needs to be encouraged by receiving reports of such cures as may be effected.

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## ENDOTHELIOMA OF THE BREAST WITH REPORT OF CASE\*

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CLARENCE E. SIMPSON, M. D.,

Detroit

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A brief consideration of endotheliomata from the point of view of the pathologist will be of value in enabling us to understand their relation to other tumors and the difficulties encountered in making a diagnosis. The classification of tumors according to their histogenesis is undoubtedly the only scientific one. Following this a tumor having its origin in endothelial cells would be called an endothelioma. Endothelium being of mesoblastic origin and a form of connective tissue, we can immediately classify endotheliomata as connective tissue tumors and hence distinct from carcinomata. Morphologically, they frequently closely resemble the atypical epithelial tumors and hence are often mistaken for carcinoma. In fact, neglecting the mesoblastic origin of endothelium and considering its cells morphologically only, many pathologists have classed endothelial tumors with epithelial tumors.

ors. Even yet the distinction is not always clearly made.

Coplin classes endothelioma as a variety of sarcoma, remarking that the picture often so closely resembles carcinoma that accurate differentiation is almost impossible. McFarland, Delafield and Prudden and Ziegler also include endothelioma under sarcomata. Prof. Zeit, in an article on endothelial tumors which appeared in the *Journal of the American Medical Association* for February 24, 1906, points out many ways in which endotheliomata differ from both the carcinomata and the sarcomata and suggests a separate classification, dividing neoplasms into four classes,—epithelial tumors, endothelial, connective tissue, and teratoid.

The actual identification of a given tumor as an endothelioma is a matter attended with some difficulty on account of the frequency with which endotheliomata simulate the structure of a carcinoma, an adenoma, or various types

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of sarcomata. Gaylord and Aschoff maintain that the diagnosis rests on the observation of the transformation of the normally situated cells into those of the tumor. Nicholls in his chapter on tumors in the American Practice of Surgery, Vol. 1, says that a careful search will often show at some point the direct continuity of the tumor cells with those of some lining membrane. Zeit gives several distinguishing characteristics of endotheliomata by which they may be identified microscopically.

But other features are of more interest to the surgeon. Endotheliomata are usually considered as being of a low grade of malignancy, although some of the softer forms are often highly malignant. According to Bland-Sutton, who writes the chapter on tumors in Keen's newly published Surgery, malignancy is more especially shown in the form of local recurrence. And this propensity is indeed very frequently met. Metastases in other organs may form, though not with so great frequency as in the case of carcinomata. Glandular involvement is also encountered, but also less frequently than with carcinomata. Endotheliomata very frequently undergo degeneration with the formation of a colloid material.

As might be supposed from their origin we may find endothelial tumors wherever endothelium is found. Thus the free surface of serous and synovial membranes and those of the brain and spinal cord, the surfaces of tendon and tendon sheaths, the cavity of blood vessels and lymphatic vessels are lined with endothelial cells and hence afford the possibility for the occurrence of endothelioma. Clinically these tumors are of infrequent occurrence, and when found are more often within the thorax or skull.

Endothelioma of the breast is a rare condition. It usually occurs early in life and presents itself as a smooth (occasionally nodulated), movable, rapidly

growing tumor, usually painless and frequently tending to break down. Retraction of the skin is not seen, and glandular involvement is seldom felt. Its diagnosis can not be made with certainty without a microscopical examination. If removed there is a likelihood of its recurrence at the former site, and this recurrence will be noted earlier than in the case of carcinoma, sometimes within a few weeks. A permanent cure is much more common after an operation for endothelioma than for carcinoma.

Because of the rarity of the condition and the typical manifestations of the case, I present the following report of a case of endothelioma of the breast, recently occurring in my practice:

Mrs. R., age 30, American born of German parentage; the wife of a baker.

*Family history.* Patient's mother was operated on for a scirrhus carcinoma of the left breast; death occurring at the age of 53 as a result of the carcinoma having invaded the pleural cavity.

*Personal history.* Patient is the mother of two children, one nine years, the other fourteen months old. When the younger child was a month old patient noticed a small lump in her right breast. This increased slowly in size, was never painful, and the patient continued to nurse her baby. The lump continuing to increase in size, six months after its appearance, in July, 1906, she consulted her physician, Dr. E. S. Sherrill, who diagnosed a mammary cyst.

This diagnosis seemed to be sustained by the fact that on puncturing the tumor bloody serum gushed out, when no mass could be felt. The "cyst" promptly filled again and an operation was advised.

*First operation* Aug. 30, 1906. On cutting down, no cyst wall was found, but the cavity was separated from normal glandular tissue by a wall of apparently necrosed and broken down glandular tissue. No tumor mass was found. The diseased portion of the mammary gland was removed with a safe margin of healthy tissue. The skin was trimmed and approximated. Drainage tube inserted. For three or four weeks there continued to be some bloody serous discharge.

This diminished and the wound healed. During this time the patient, contrary to definite

instructions, continued to nurse her baby. The engorged condition of the breast incident to lactation doubtless had much to do with the continued serous discharge.

During the succeeding month nothing abnormal was noted. Then beneath the scar of the first operation the patient noticed a swelling. This slowly increased and she consulted her physician during November. The appearance of this second tumor beneath the scar of the former operation, at a place from which all the breast tissue had been removed, showed that we had to deal with a neoplasm and not with a mammary cyst. There soon occurred a breaking down of the tumor and a thin discharge through an opening in the old scar. Operation was urged and refused until after Christmas.

From the last of November until the time of the second operation the tumor increased until it reached the size of a man's fist. Rapid degeneration occurred, shown by a constant and profuse, thin, foul-smelling discharge. The skin was movable over the tumor except at the old scar, no axillary involvement could be detected, and at no time was the mass painful nor tender.

*Microscopical diagnosis.* Dec. 20, under local anesthesia, a piece of the tumor was removed and sent to the Detroit Clinical Laboratory. The report of the pathologist, Dr. P. M. Hickey, is as follows: "There are proliferating cells resembling endothelial cells, arranged in alveolar form, often vacuolated, but no mitoses are seen. The growth is of a low grade of malignancy. Endothelioma."

Considering the early appearance of this tumor following the first operation, and its behavior since then, it seems probable that the condition was an endothelioma from the first, instead of a cyst as had been believed.

*Second operation* Dec. 27, 1906, at Harper Hospital. Entire right breast, pectoral fascia, and part of the pectoralis major removed. Axilla cleaned out and one enlarged gland found. Skin margins approximated and axilla drained by stab puncture.

*Pathologist's report on gland.*

"This specimen shows the same peculiar structure as that from the breast of recent date. There are infiltrating large nucleated cells occupying lymph spaces, with considerable intercellular reticulum. Occasional multinucleated cells are seen. The picture is one of low grade malignancy, probably of endothelial origin."

P. M. HICKEY, Pathologist.

Convalescence was rapid and satisfactory. Primary union of skin margins occurred, save one spot the size of a five-cent piece, which healed by granulation. Patient's general condition improved and she gained in weight. Jan. 26 a nodule, the size of a small marble, was discovered beneath the skin near the scar.

*Third operation* Jan. 28, 1907. Tumor removed with surrounding skin and muscle. Skin margins could not be completely approximated and the uncovered area has healed by granulation. At the present date, March 18, 1907, no further occurrence has been observed. The patient is in good general condition, has regained her customary weight, and is attending to her household duties as usual.

The presentation of this case will, I trust, serve as an illustration of some of the characteristics of endothelioma previously mentioned, namely the frequency of local recurrence, the fact that glandular involvement does occur, and the tendency to degeneration; all of which argue for early and complete removal.

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## THE IMPORTANCE OF COMPLETE EXTIRPATION IN TONSIL OPERATIONS\*

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ESLI T. MORDEN, M. D.,

Adrian.

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The purpose of this paper is merely one of emphasis, and not an introduction of anything new or original. Most all authorities agree that, in cases of hypertrophied or diseased tonsil, where surgical measures are indicated, all diseased tissue should be removed. Yet there are those who, seemingly, do not appreciate the value and importance of complete extirpation. I do not think that too much can be said, nor that too much can be written on this subject. There is hardly a general practitioner, either of the city or of the village, who does not wield a tonsillotome, and it is to these that we should direct our attention. Not that they should not use the tonsillotome, for many times they can use it to advantage, but that they should not use it indiscriminately. So, as before stated, it is to emphasize the importance of complete extirpation of the tonsil, that this paper is presented.

If, in laparotomy, the appendix, or ovary is hopelessly diseased, the surgeon undertakes those measures that will immediately or subsequently eliminate all morbid tissue. Such is compatible with good surgical principles. The surgeon does not amputate the end of the appendix, close up the abdominal wall, and leave nature to deal with the remaining diseased portion. He removes the whole of the appendix, whether entirely or partially affected. If he is unable to reach an appendix, deeply situated in an abscess cavity, and there is fear of breaking up nature's protective wall, he es-

tablishes drainage or adopts such measures as will be most conducive to the complete obliteration of the diseased member. If the appendix is secured, as much of it as possible is removed, and the stump is so manipulated that nature will complete the process of obliteration.

These are only the general principles of surgery locally applied, and they *are* so applied by the surgeon of ordinary skill in these cases. But the tonsillotome and allied contrivances are extensively used by the unskillful as well as the skilled physician. I have seen many cases where the tops of the tonsils, so to speak, have been snipped off and the greater part left intact, to continue in the process of degeneration. Of course, "every little bit helps," but only in a mechanical way. It is true that the bolus of food meets with less opposition in transit, and there is a little less obstruction to respired air currents and sound waves. The stump remaining, however, is more vulnerable to micro-organisms that gain access through uncooked foods and respired air, than before it was operated. Instead of the mouths of several ducts opening into the pharynx, there is exposed the larger lumen of lacunae, in greater number, and furnishing a beautifully prepared culture medium for the propagation of bacteria. After these superficial and inadequate operations, the throat is sore for a time and an active inflammatory reaction ensues; but apparent recovery obtains, the fee is collected, and the patient assured that tonsillitis will never more be a cause of suffering. Sometimes

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\*Read before the First District Councilor Society in Detroit, March 28, 1907.

it is stated to the patient that the tonsils are liable to "grow again." This is a fallacy, pure and simple, for in those cases where they "grow again," you simply have an exacerbation of a dormant disease in the stump of a poorly operated tonsil, or the stump of a tonsil that has been allowed to remain by unskilled hands and that has continued in the process of hypertrophy. If all adenoid tissue is once removed, there will be no "growing again," no exacerbation, no recurring tonsillitis, no fear for future trouble, absolutely.

But enucleation is a difficult and skillful operation, though considered simple by many physicians. I recall a case, a lady 30 years of age, in which greatly enlarged tonsils, of the submerged variety, were apparently entirely removed by a cautery dissection. The tonsillar fossæ appeared smooth, suggesting the external limiting membrane. I was called in, the following autumn, to see this case in which I had promised immunity from future attacks of tonsillitis. I incised three pharyngeal abscesses in a period of as many weeks. There was no doubt but that remaining fragments of tonsil were primarily responsible. This case is cited to demonstrate that other complications than recurring tonsillitis often follow incomplete tonsillectomy. Since the destruction of the remaining fragments, situated immediately posterior to the anterior pillars, and that had formerly escaped detection, no further trouble has arisen.

Only recently, a girl of 16 years was brought to me for treatment for a sore throat. Six years previously I had removed both tonsils with a tonsillotome under general anesthesia. On examination, I found the tonsillar fossa on the left side clean, but on the right side there remained the stump of a tonsil that had eluded the lasso, so to speak. The hypertrophy that had indicated operation in the first place, had continued

in the stump. There were crypts and protuberances. An area of redness along the margin of the anterior pillar suggested an adherence of tonsil to pillar. The galvano-cautery was used to enucleate the diseased stump, after first dissecting it from the anterior pillar with scissors. The parents in this case had been advised by their family physician that the tonsils were "growing again," but when I explained that at the first operation it was impossible to remove all of the right tonsil on account of its having such a broad base that it could not entirely become engaged in the grasp of the tonsillotome and that it was not a new growth of tonsil, the parents were satisfied.

This case demonstrates that sooner or later disturbances will arise from any fragments of adenoid tissue allowed to remain when tonsillectomy is attempted, and it has demonstrated to me that I cannot be too thorough in my work.

With children under ten or twelve years of age, I have found that it is nearly always impossible to secure submission to tonsillectomy without general anesthesia. This is unfortunate, for a large majority of these cases are found in children under this age. It is unfortunate for the additional reason that the surgeon cannot execute so complete an operation as when the patient, having possession of all faculties, is able to very materially assist him. Under general anesthesia the operation must be done more quickly, as its field involves the respiratory tract, making the administration of the anesthetic difficult and embarrassing respiration during its performance. Alarming conditions are more to be feared from the anesthetic than from hemorrhage, in my experience. The necessity of combining speed with skill in the use of the tonsillotome under general anesthesia, and the difficulty in securing the proper positions and illumination of the field, tend toward making

the operation incomplete, even with the most clever and skilled surgeons. The surgeon can only do as best he can under the given circumstances.

On the other hand in young children, the hypertrophied tonsil is found, as a rule, to be well circumscribed and to project well out into the pharynx, with a more or less constricted base or pedicle. These tonsils are easily grasped with the tonsillotome, and complete excision is possible. The so-called submerged tonsils are more frequent in the older children and adults, and it is this variety of tonsil that causes the most disturbance and dire effects. They are the most difficult of removal and complete extirpation with the tonsillotome is impossible. The submerged tonsil should not be operated by the general practitioner with a tonsillotome on this account. It has a broad base, and the diseased condition is found to have involved the deepest structure of the tonsil, it being com-

pletely honeycombed by the ramifications of enlarged and disorganized lacunæ, which are filled with morbid secretions and food debris. This variety more than any other, demands complete extirpation, and is best accomplished by cautery dissection, though good work can be done with Robertson's scissors or any of the modifications, and with the scalpel. The snare has little or no advantage over the guillotine.

The general practitioner will ever do considerable good with the tonsillotome, but he should be urged to select his cases more carefully, to remove all diseased tonsillar tissue possible, to give a guarded prognosis where complete extirpation is impossible in the younger subjects necessitating general anesthesia, and to deliver the difficult cases over to more skillful hands, meaning by difficult, those cases where the tonsil cannot be easily engaged within the fenestra of the tonsillotome or guillotine, and removed en masse.

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### HISTORY REPEATS.

The celebrated letter of Dr. Rush to a young country doctor reminds us that conditions are not growing any worse, but rather better. It contains also some good advice.

Philadelphia, April 21, 1812.

"Dear Sir:—The facility with which a medical education is acquired in our country has multiplied physicians to such a degree that I do not know of a spot in the United States in which you would fix yourself with more advantage than in the one you now occupy. Competition and slow pay are now the conditions of a medical life everywhere. My advice to you is to remain where you are; you will grow with the growth of the settlement. Purchase upon credit, if possible, a small farm; a little debt will make you industrious and furnish you with an excuse to send in your bills

as soon as your patients recover. Employ the leisure which a healthy season will give you in agricultural labors; the more you will obtain in this way the more independent you will be of your patients, and, of course, the more you will be courted by them. Happiness does not consist in wealth. A competence, books, alternate labor and ease, to use the words of the poet Thomson, a good wife, a few friends, vicinity to a church, and conduct regulated by the principles of the Gospel constitute the sum total of all the happiness this world is capable of giving, and these may all be possessed and enjoyed in your present situation.

"From, dear Doctor,

"Yours truly and affectionately,

"BENJ. RUSH.

"To Dr. Petriken."



## SUMMER DIARRHEA\*

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J. M. SATTLER, M. D.,  
Manistique.

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It is not my purpose to present anything new regarding the etiology, pathology, or treatment of summer diarrhea, a disease to which hundreds of children succumb during the summer months in our cities. But it is my purpose to very briefly state and emphasize some of the various duties of the medical attendant who is called to treat one of these little patients suffering with an attack of diarrhea.

Summer diarrhea is an acute, specific, disease, characterized by gastro-intestinal irritation and general sepsis; it is known by many different names—in fact, many of our new authors are known by adding a new name to the long list; among these are epidemic enteritis, zymotic enteritis, ileo-colitis, entero-colitis, gastro-enteritis, muco-enteritis, gastric catarrh, catarrhal enteritis, duodenitis, jejunitis, ileitis, colitis, gastro-intestinal catarrh, and acute gastro-intestinal intoxication. It is really interesting and at the same time ridiculous to read the various causes of death that the secretary of our State Board of Health is sending out every month. Ought we not to have, as a large body of professional men organized under a county, state, and national society, a greater uniformity of terms by which to express the same thing? Of course, when we study carefully the anatomical divisions of the bowel, we no doubt discover localized inflammatory lesions, but in a majority of cases the entire intestinal tract is involved to a greater or lesser extent, consequently the most practical name to

apply to this condition is acute catarrhal enteritis or acute gastro-enteric intoxication. As a rule the lesions in the intestinal tract are but slight, at least bearing no relation to the severity of symptoms, which are due principally to the absorption of toxic material, often following very quickly an attack of indigestion.

Among the etiological factors producing this very prevalent and often fatal disease of childhood, first and foremost no doubt is food and feeding. Holt tells us in his late work on infancy and childhood that of 1,943 fatal cases which he has collected, only 3% had the breast exclusively. He further adds that diarrheal diseases in nursing infants are extremely rare, and we have no good reason to dispute such high authority; in fact, our own experience is teaching us the same significant facts, and we as physicians ought to insist just so far as we have any power, that each and every mother, in reasonably good health, shall nurse her own babe. Is it not true that too many practitioners are apt to permit the mother to wean her baby, just in order to be agreeable, and to show superior skill in preparing artificial food as a good substitute for breast milk, and thereby releasing the mother from her maternal duties of the home in order to attend to the demands of society? Of course there are some who can not nurse their babies and others should not. To those we must give timely advice and instructions. Again, a frequent cause of diarrhea is over-feeding and too frequent feeding. Artificially fed babies are nearly always over-fed. The common practice of feeding a baby whenever

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\*Read before the Upper Peninsula Medical Society, Escanaba.

it cries, or allowing it to have the nursing bottle most of the time, should be under no circumstances allowed. Artificial feeding would not cause so many fatalities in infancy if there were not so much ignorance and carelessness exhibited by the laity. It is surprising how quickly diarrhea develops in a perfectly healthy baby by giving impure milk, and especially when given too frequently; comparatively speaking, there is no better medium in all the food preparations for the development of bacteria than cow's milk.

Age is another predisposing cause; writers nearly all agree that the greatest fatalities of summer diarrhea in children are between the ages of six and eighteen months; four-fifths of all diarrhea in children in our cities occurs under two years of age.

Heat was formerly considered a direct cause in producing so much intestinal trouble among the children, but late investigators tell us that heat is only an indirect cause, producing constitutional depression, excessive perspiration, and great thirst, which is usually satisfied by giving too much milk or other liquid food, nearly always resulting in an attack of indigestion, which, if allowed to continue, will produce serious consequences. There is no doubt, however, that a large majority of the serious cases have an infectious origin. Cow's milk, as it comes to the average consumer, is simply saturated with bacteria; especially is this true in hot weather, and nearly all text-books mention July as the month during which the greatest number of fatalities occur. This does not seem to be true in Northern Michigan, at least not in the writer's experience. Here it is most prevalent during the latter part of August and September.

While it is true that a baby often develops a violent form of enteritis while it is cutting teeth, this does not prove that dentition is a causative factor, ex-

cept so far only as it interferes with the general health of the child. Among some of the other causes that might be named are surroundings, such as filth and a general unsanitary condition of the house and clothing, swallowing of foreign bodies, and eating of indigestible substances which soon undergo a process of decomposition, producing toxic symptoms of a serious type.

As a rule it is not difficult to make a correct diagnosis. Some cases have a gradual onset, baby is simply a little out of sorts, is peevish and restless, a little looseness of bowels, no gastric disturbances and no temperature, in fact the mother usually ascribes it to teething, but in a day or two the child begins to have severe digestive disturbances, is more or less purged, stools are very offensive, green in color, at times blood streaks may be seen, temperature at this time about 101 to 102, tongue slightly coated. There is thirst and very rapid pulse. If this condition is not remedied at once the child passes from bad to worse, presenting a picture of general systemic infection. Others do not have this gradual onset, but are stricken down suddenly, often with convulsions, others soon pass into a condition of profound toxemia. Sometimes a perfectly healthy baby is suddenly seized with profuse vomiting and purging, eyes are sunken, hands and feet are cold, very rapid pulse, temperature 104 to 106. While a diagnosis is usually easy, the medical attendant must not lose sight of intussusception, appendicitis, etc., which are usually ushered in with vomiting and a few evacuations of bowels, due to an effort of nature to empty bowel below obstruction.

The prognosis of course largely depends on conditions. If seen early and properly treated the majority of cases get well, but unfortunately this is not always the case. If the physician is not called until general infection has taken

place or some serious lesion of bowel is present, a guarded prognosis should be given, especially if baby is under six months of age, artificially fed, no suitable nurse at hand and the surroundings unhygienic.

There would not be so many death certificates needed for enteritis, colitis and all the other synonomous names included, if we physicians would use a little more common sense and a little less medicine. For convenience I will mention three classifications of treatment,—prophylactic, dietetic, and medicinal. Here is where the old saying, that "an ounce of prevention is worth a pound of cure," is very applicable. The majority of severe and even fatal cases are very mild in the beginning, simply a little gastric disturbance—which by the way is a danger signal usually not heeded by the mother and sometimes not even by the physician. At this early stage, the withholding of all food for twenty-four hours with one or two drachms of castor oil would cut short and prevent serious consequences. If in a crowded city, baby should be sent to a park. Pure air and plenty of it would be a greater factor in reducing mortality rate in summer diarrhea of infants in our crowded cities than any other one remedy that could be named, excepting absolute cleanliness of all the surroundings, including napkins, clothing and nursing bottles. It is not sufficient simply to wash napkins, they must be boiled. Mother should always disinfect her hands after handling napkins. There is good reason to believe that some degree of contagion is present in some cases. Another prophylactic measure is regularity in feeding, quality and quantity of food, modification of cow's milk if cow's milk is used, and to be absolutely sure that it is pure, either by strict sanitary measures regarding receptacles and transportation, or by sterilization. Impure milk and too much

of it is perhaps the greatest causative factor.

Our State Board of Health is lavishly distributing leaflets among the laity on the cause and prevention of all contagious diseases, which is very good so far as it goes, but I believe a general crusade of education should be inaugurated by the medical profession, petitioning the State Board for additional leaflets to be sent to all the mothers of Michigan, containing full instructions on infant feeding, and emphasizing in italics the danger if instructions are not followed. It is surprising to see the amount of ignorance and carelessness shown in almost any community along this line.

One of the most important duties of the physician is to carefully supervise the dietetic treatment. He must be master of the situation, always courteous, but positive in all his remarks. His duty is to see that all food is withheld for at least twelve to twenty-four hours, since at this stage digestion is practically arrested and food in any form would only do harm, especially in bottle-fed babies. Pure water may be given freely, as it satisfies thirst and supplies liquid for the wasted tissues. After all food has been withheld for twenty-four hours, barley and albumen water should be given cautiously, and stimulants when required, but only in small quantities, well diluted. If the baby is nursing the breast may be given gradually after the stated interval. Napkins should be examined carefully, and as soon as any symptom of indigestion is manifested, another interval of rest must be taken. The same rules must be followed with bottle-fed babies, only more care is needed and greater difficulties are encountered in the preparation of food. Often the skill and ingenuity of the physician is taxed to the utmost in this direction. As a rule, pure cow's milk, modified to suit the individual case, is the best for babies that must be artifi-



cially fed. As to formulæ, experience teaches us that no two babies thrive well on the same formula, consequently I will refer you to any of our standard text books, or perhaps better still to your own individual experience. The same precaution needed in infants must be observed in older children; if we must err, let us do so by giving too little food instead of too much.

In a few cases milk in all forms and modifications must be excluded for a time; in such cases, meat-juice and other animal broths carefully prepared without any fat, and perfectly predigested, must be tried, alternated with barley and rice water; some babies do well on the artificially prepared foods on the market.

In medicinal treatment much is yet desired, for we have no specifics. The various serums on the market are as a rule disappointing, due no doubt to the fact that in the majority of severe cases there is a mixed infection. Intestinal antiseptics are likewise disappointing, at least to a great extent. The medicinal agents used by the average physician today in the various forms of diarrhea are almost legion, while all of these, either singly or combined, may have some virtue. There are but four in my experience that are really indicated in the majority of cases.

Let me read them in order of importance: calomel, castor oil, opium and bismuth. The first indication for medicinal treatment in an acute attack of diarrhea in an infant is to aid nature in her efforts to clear the alimentary canal, and this should be done quickly and thoroughly. Calomel is the best drug to use, and it should be given in one-quarter grain doses, hourly, until six or eight doses are taken, to an infant under six months of age; for children from eight to eighteen months one-half grain should be given until four or five doses are taken. Calomel is the best drug in the early stage, because it is easily adminis-

tered, is a local sedative to stomach, a good antiseptic, is well borne by children, and always accomplishes the desired effects. It is best given with a little bicarbonate of soda and saccharin, well rubbed together. It is good practice to follow calomel with castor oil, in one to two drachm doses, about six hours after the last calomel powder.

I would also recommend in these cases at the first visit to irrigate the colon; I always carry a soft rubber catheter in my satchel, which, after being sterilized, is attached to a fountain syringe. For infants under six months, one pint of saline solution may be used; of course care must be taken in this little operation; usually the catheter is easily inserted if well lubricated, but should it coil upon itself, withdraw partly and try again; this process is to be repeated twice a day for a few days; in older children one quart may be used. These colonic irrigations are productive of much good if properly given, as they facilitate the expulsion of great quantities of irritating material, and reduce temperature. After the entire alimentary tract has been thoroughly emptied, bismuth is indicated and should be given in large doses, ten to fifteen grains to a baby one year old. I prefer the subnitrate, which usually agrees the best; it may be given every three hours until the desired effects have been accomplished. It is generally customary to combine opium in some form in case there is pain and watery stools, but as the years go by, experience teaches us to be extremely careful in giving opium to infants and small children by mouth. Opium is indicated in many cases to establish rest and to lessen intestinal peristalsis, two very important things to accomplish. I have to a great extent abandoned the routine method of prescribing it every two, three or four hours, by mouth, but instead give it hypodermically; in this way it does not interfere so much with

digestion, and requires but very little to accomplish the purpose. To an infant under six months, the initial dose should not exceed 1/120 grain, one year of age 1/80 grain.; always use a combination of morphine and atropine, this dose may be repeated once or twice during the day, gradually increased if necessary.

Of course, extra precaution is necessary as to aseptic measures. I have never had any bad results from this method, and most heartily recommend it. At this time the evacuations must be closely watched, for if they lessen in frequency and improve in color, the breast may be given to those who are breast fed, to others some form of modified cow's milk, in neither case oftener than three or four hours. Should any disturbances follow, food must again be withheld for a short time; in some cases all food should be predigested, in others all milk must be omitted, and animal broth substituted for a few days. Stimulants are

required in nearly all cases; should temperature be high, nothing is better than warm and tepid baths, if circulation is sluggish, good results will follow a warm mustard bath, these may be given three or four times during twenty-four hours. An ice bag under the head is highly beneficial. In protracted cases of colitis, small doses of calomel combined with bismuth usually gives good results. Many times the practitioner's skill is taxed to the utmost in handling these little patients.

In conclusion, allow me to emphasize the fact that it is impossible to indicate a special mode of treatment suitable in all cases of summer diarrhea, since each case, whether it be mild or severe, acute or chronic, presents certain characteristics and peculiarities, in which remedies must also be varied according to the different stages of the disease, and previous condition of health and constitution.

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### PHILOSOPHY OF OSLER.

Except it be a lover, no one is more interesting as an object of study than a student.

No human being is constituted to know the truth, the whole truth and nothing but the truth: and even the best of men must be content with fragments. In this unsatisfied quest the attitude of mind, the desire, the thirst, the fervent longing are the be-all and end-all.

The hardest conviction to get into the mind of a beginner is that the education upon which he is engaged is not a college course, not a medical course, but a life course, for which the work of a few years under teachers is but a preparation.

Men will not take time to get to the heart of the matter. After all, concentration is the price the modern student pays for success. Thoroughness is the most difficult habit to acquire, but it is a pearl of great price, worth all the worry and trouble of the search.

A true student is a citizen of the world, the allegiance of whose soul, at any rate, is too

precious to be restricted to a single country.

Lift up one hand to Heaven and thank your stars if they have given you the proper sense to enable you to appreciate the inconceivably droll situations in which we catch our fellow creatures.

Hilarity and good humor, a breezy cheerfulness, a nature sloping toward the southern side, helps enormously both in the study and in the practice of medicine.

*Io victis!* Let us sometimes sing of the vanquished. Let us sometimes think of those who have fallen in the battle of life, who have driven and failed, who have failed even without the strife.

You can not reach any better position in a community; the family doctor is the man behind the gun who does our effective work.

The successful teacher is no longer on a height pumping knowledge at high pressure into passive receptacles—he is a senior student anxious to help his juniors.

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JUNE

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### Editorial

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Lock-jaw is dreaded by the laity, and, we must admit, with great reason, for our means of cure are only exceptionally successful. The general public has not until recently identified the term "lock-jaw" with the scientific synonym "tetanus," and even now the latter is too little recognized. Physicians still need to translate it, in order that it may become as familiar as "diphtheria," "tuberculosis," and "pneumonia," formerly called in popular speech "putrid sore throat," "consumption," and "lung-fever." The laity associate tetanus with wounds from rusty nails perhaps more than anything else, but in point of fact such etiology operates rarely in comparison with other causes, especially blank cartridges and other materials of the Fourth of July celebration. The cases of tetanus furnished by children during the early July season are in excess of all other cases occurring in the whole year, and the death roll ensuing is like a sacrifice on the altar of Independence—a sacrifice that can hardly be welcome to the shades of the framers of the Declaration.

For four years the *Journal of the American Medical Association* has published a report of tetanus resulting from Fourth of July injuries. In 1903 there were 415 cases with 406 deaths. In 1906 there were 89 cases with 75 deaths. This diminution was largely due to the educational campaign carried on by the profession in a few localities, and to the

action of the authorities in several places, restricting the sale and use of certain dangerous implements. Moreover, the widespread dissemination of the knowledge of the seriousness of these wounds and the use of prompt surgical measures and of antitetanic serum, have doubtless prevented many a case of the disease.

A good instance of what can be accomplished is furnished by St. Louis, in a report by Dr. H. J. Scherck, in the *Journal of the American Medical Association*, August 18, 1906. For several years every case of injury from explosives coming to the city dispensaries has had immediate and thorough operative treatment and an injection of serum, and has then been carefully watched until well. The work in this line has been assisted through the cooperation of the press, who gave much space each year, at the right time, to a description of what had been accomplished, and what should be done in case of injury. The benefit derived from this campaign in St. Louis is shown by the figures. In 1903 there were 56 such wounds reported, which had no treatment by the serum, and 16 cases died of tetanus. Since then the serum has been used in every instance and there has not been a death, and last year alone 170 cases were treated. If statistics were collected elsewhere the same result would probably be noted. The writer has seen at times thirty cases of these injuries during June and July, of which, treated in this manner, not one developed tetanus. At the Massachusetts General Hospital, in Boston, Bain took cultures from many such wounds at the time of first treatment. A certain number showed the presence of tetanus bacilli in the tissues and wadding removed, but no case developed tetanus which had early treatment at the hospital.

The annual tetanus epidemic, then, is close at hand, and the medical profession can do much to mitigate its sever-



ity. This may be done in two ways: First, by spreading among the public a proper appreciation of toy pistols and fire-crackers; second, by appealing to the local authorities, with the purpose of prohibiting or restricting the sale of them. If the desired regulation cannot be procured, or, if procured, cannot be enforced, the public should then be taught the danger of all Fourth of July wounds, the necessity of prompt and radical surgery and of serum injection, and the places where such treatment can be secured by the deserving poor. The medical profession in every community ought to interest the local press, and see that articles are written in simple, forceful manner, instructing the public along these lines. The subject of tetanus ought to be presented before a full meeting of every County Society, with complete discussion, and there should be a local depot for the supply of antitetanic serum.

Fourth of July wounds cannot be passed by with mere cleansing and dressing, or with perfunctory exploration; the external wound is often small, and whether small or large, must be laid still wider open. Every patient presenting such a wound should be given a general anesthetic; the injured part is thoroughly scrubbed with soap and water and antiseptics; a tourniquet is used where possible; the wound is enlarged, the ragged edges trimmed, and every bit of lacerated tissue and foreign matter removed; it must be remembered that particles of wadding may lodge at points remote from the wound of entrance, and these may often be traced by a slightly discolored tract which they have made in traversing the tissues; it is probably unwise to use any disinfectant like strong carbolic acid, because it causes a superficial coagulation and shuts in any existing bacteria; it is best to pack the wound wide open with dry sterile gauze, without applying any su-

tures; if the wound is on an extremity, a splint is applied. At the time of operation a dose of antitetanic serum, ten cc., is given subcutaneously, with aseptic precautions. It can be procured in glass syringes ready to use, like the modern doses of antidiphtheritic serum. The after-treatment consists of daily dressings and observation of temperature. A slight rise of temperature is often noted the day following the serum injection, as well as an occasional urticarial eruption.

If the foregoing procedure were made a routine in every case of wound from blank cartridges, gunshot, fire-crackers, toy pistols, and fire-works, the occurrence of tetanus would be rare. If half-way measures are adopted and tetanus results, one must feel a heavy burden of responsibility, for the disease can be easily prevented, but when once established, is seldom cured.



A medical building and reference library are the crying needs of the profession of Detroit.

The Wayne County Society has met for the past year in the Supervisors' Room in the County Building, and it has been so unsatisfactory that the average attendance has fallen below that of previous years. The acoustics of the hall are bad, making both speaking and listening difficult. Many have expressed themselves as unwilling to enter into the discussions on this account; certainly the discussions have not been so spirited as in former years. A change is needed and needed badly. If a hall cannot be elsewhere obtained, one of the rooms used by the Justice's Court might be obtained. The meetings there would be less formal and better fellowship would prevail. But the ideal solution of the difficulty would be the procurement of a building which would be the permanent home of the society. That

this could be accomplished at once, or within a year, is believed by but few; that a start should be made, and made at once, is believed by the majority.

Elsewhere in this issue will be found an account of a recent meeting of the society at which the initial steps were taken toward securing such a building, or at least, toward beginning a fund with which such a home may later be built. A committee was authorized, which will study the matter and devise ways and means. It would seem to us that a wise solution would be the purchase of a house and lot somewhere in the belt upon which business has not yet encroached, and which is, at the same time, too near the business section to be very desirable for residences. Such a property could be purchased for ten or twelve thousand dollars. Unless all signs fail, the present is the time for making such a purchase. The major portion of the amount could be obtained at once, and a mortgage assumed for the remainder. The rise in value of a property of this kind would easily take care of the investment.

The building thus acquired could be remodeled at a comparatively small cost, the lower rooms being thrown together for an audience hall, and the upper used for library purposes. In the early days of their development, the medical libraries of Boston, New York and Cleveland occupied such houses. The splendid Medical and Chirurgical Faculty Library in Baltimore is still located in an old building, although, even with additions, the facilities are inadequate at the present time.

What was done in Boston, New York, Cleveland, Baltimore, and other cities, can be done in Detroit. It needs but the enthusiastic work of a few whole-souled men.



**How could a library be gathered?** This question has been asked, during

the recent agitation on the subject. Once a proper place is obtained and once it is demonstrated that the books will be cared for, donations of journals and volumes would come in from many sources. Many publishers send their new books to such libraries; many authors do likewise; libraries are on the free list of almost all medical journals (the *JOURNAL* goes free each month to not less than fifteen); valuable private libraries would be bequeathed; a book fund would undoubtedly later be established, reprints and monographs would accumulate rapidly and when properly catalogued would make a most valuable asset; separate sections on the specialties would be donated by men interested in those subjects; moreover, the Association of Medical Librarians furnishes lists of duplicates, and makes exchanges, often at no greater expense than the freight bills.

Thus it is that once begun a library would undoubtedly grow with astonishing rapidity. The nucleus, already in the Detroit Public Library, which could without doubt be obtained, is more valuable than is generally supposed.

The gathering, arrangement and care of such a library would mean much work and would require much energy, but to men of certain tastes, and there are such in Detroit, it would be a pleasure. The only requisites are the building, even though it be humble, and some feasible scheme of maintenance.



**The cost of maintenance would not be excessive.** The amount for repairs, insurance, and interest would depend, of course, upon the character, cost, etc., of the property acquired. The "running expenses" would be made up, for the most part, of five items, i. e., heat, light, attendants, binding, book and journal purchases. The heating and lighting might be estimated at \$200 and \$75, respectively. The oversight of the library, cataloguing, etc., would be done

by some member, without salary, with the aid of a stenographer who would keep the library open from nine a. m. to five p. m. The services of such a stenographer can be readily obtained for \$350 per year. Many a medical student would be glad to look after the heating and keep the library open evenings for his room rent and perhaps \$200 a year. (It might be closed evenings during the summer months.) Cleaning might cost another hundred dollars.

Two hundred dollars a year will pay for and bind twenty-five of the best journals, which in addition to the gifts, would make a very attractive journal room. Add to these amounts, one hundred dollars for incidentals, and the total is less than fourteen hundred dollars.

The Society formerly paid \$30 per month for eight months—and at one time more—for its meeting hall. We see no reason why this amount should not be appropriated toward the “running expenses.” One hundred and twenty library members, paying \$10 a year, or better, 160 paying \$7.50 a year, would cover the expense of a plan which seems to us feasible; and not so ambitious as to court disaster.

A properly equipped library would do more to stimulate medical work and medical thought in Detroit than any other conceivable factor. It is true, that a majority of references—of the ordinary kind—can be found in the city, if one knows where to go for them, but the looking up of a series of references is such a task and requires such an expenditure of energy, that one hesitates to begin and tires before his task is completed. This may account for the paucity of thorough papers which have been turned out by the Detroit profession.

But it is not for the man engaged in research, or the man with literary ambitions for whom a library is most needed, although such appears to be the popular opinion. In discussing the matter

one hears too often the sentiment expressed that a library is a good thing for a few, but not necessary for the busy practitioner, as he already has more books than he can read. Such men usually do not read at all and are the ones who profit the most by having a pleasant place where an hour or two may be spent, a few times a week, in looking over the current journals and the newer books. It is wonderful how such a habit grows upon one, if the facilities are such that it is pleasure and not work. It is in this stimulation of the reading habit in those who read but little, that a medical library serves its greatest purpose.



The spread of medical knowledge is dependent, in a great measure, upon the medical press. It is largely influenced by current medical literature, but not a little also by the text books, systems and encyclopedias which from time to time appear. Medical science is now so far reaching, its ramifications are so many, and its current literature so diffuse, that no one man can keep abreast of the times, without constantly reading summaries of present knowledge. A good text book is one which contains such summaries, but the man who reads often feels the need of something more extensive than the ordinary text-book chapter, and he turns to the monographs of noted authorities. Fortunate is he who has access to a library in which these monographs may be found. Not every man is thus favored. It is, therefore, a matter of congratulation that Osler has undertaken the publication of a series of monographs so systematically arranged that the whole field of internal medicine will be covered.

In the introduction to this new system, Osler shows how profoundly the publication of such works has influenced medicine. In America we have had Pepper's *System of Medicine*, issued



nearly twenty years ago; Loomis and Thompson's *System*, issued in 1897; the *Twentieth Century Practice of Medicine*, which appeared from 1895 to 1900, Buck's *Reference Handbook*, a second edition of which came out between 1900 and 1904, and selected volumes from Nothnagel's *System*.

In England, Reynold's *System of Medicine* and Allbutt's *System* have done much to mould medical thought. In France, Charcot's *Traité* has gone through two editions, and in Germany, Virchow's *Handbuch*, von Ziemssen's *Encyclopedia*, and the great *Handbuch* of Nothnagel have made a great impress, not only upon the medicine of Germany, but also upon the medicine of the world.

In proof of the need of works of this kind, Osler makes a comparison of the first volume of this new work and the first volume of Pepper's *System*. "It seems scarcely credible," he says, "that in so many directions in so short a time the entire outlook on the science of medicine can have been so revolutionized." Three illustrations are given: Our change of view regarding heredity, as modified by the studies of Weismann and others; our knowledge of the chemical processes of the body, more particularly those processes which have to do with metabolism; and the extension of our knowledge regarding the causative agents in the infectious diseases.

These are but a few of the phases of medical science which twenty years have vastly changed. How, but by reading and attending medical societies, is the practitioner to keep from practicing in accordance with his lectures notes, written perhaps twenty years ago? We know certain men who say that they never buy books, because after a few years' use, they are out of date, but how few apply the same philosophy to their automobiles.

The presentation to Dr. A. P. Biddle of a beautiful silver platter, as a testimonial for his services as secretary-editor, extending over six years, was one of the pleasing features of the Saginaw meeting. The platter is a large one; on the inside is engraved the Biddle crest and on the bottom the following inscription: "The Michigan State Medical Society to Andrew P. Biddle, M. D., in Recognition of his Efficient Services as Secretary, July 1, 1900, to January 1, 1906."

Doctor Burr, chairman of the council, in making the presentation, said:

Mr. President: Mayor Baum in his felicitous welcoming address described to the Society the Saginaw of fifty years ago and dwelt upon the difficulties experienced in the early days in making habitable the spot on which has been built this beautiful and interesting city; and Dr. Connor in his remarks last evening carried us one hundred and fifty years further back (laughter), tracing minutely the progress of civilization and the instrumentality of physicians in its development. We were told of the hardships of the pioneers and their magnificent efforts through which the present day prosperity has been established. Everything is owing to these hardy men who blazed the trail, hewed out paths through trackless forests and established in the then wilderness, first the camp, then the cabin, then the settlement from which have grown the charming villages and busy cities of the present day. They caused this forbidding territory to blossom as the rose and to yield its best. All honor to the pioneer!

A few years ago the medical profession was lost in the wilderness. It was without cohesion or organization; indeed, torn apart by factions and uninfluential as a body because of the impossibility of an effective line-up. Some master minds conceived and presented a plan of organization, which was more or less promptly adopted in the various states of the Union. Michigan was one of the first to fall into line. Among the names in the early efforts in this direction which stand out prominently are those of Leartus Connor and Andrew P. Biddle. Like the pioneers of old, these latter day pioneers builded well. From a feeble and frail organization (that of the earlier

state society, comprising about six hundred physicians), the membership of this body has grown in the period of six years since re-organization to over two thousand, and Mr. President, the brilliant addresses, the thoughtful papers and discussions, and the sane and intelligent committees' reports at this meeting indicate indubitably that the profession of Michigan is in the language of the small boy, "going some." Everybody is aware that the laboring oar in an association is managed by the secretary, if he is efficient, and during the critical formative period, the Michigan State Medical Society was admirably officered in this respect as well as others. The then secretary, Dr. Biddle, possessed of infinite tact, rare good judgment, and excellent medical qualifications, was ideal in that position. To him the Society is largely indebted for its relatively smooth career under what might have proven tempestuous conditions and its avoidance of sunken rocks and dangerous shoals. The Society in just recognition of this self-sacrificing and difficult work, appointed at its last meeting a Committee consisting of Drs. C. T. Southworth, Angus McLean and myself to procure a testimonial to be presented to Dr. Biddle at this time. The Committee has performed this pleasant duty and now, Dr. Biddle, the Society presents to you this bit of tableware with the assurance of its profound esteem and respect, and expressing the hope that "all may be fish that comes to your net"—either gold-fish or edible fish.

Dr. Biddle replied in part:

I am indeed happy, Mr. President and members of the Michigan State Medical Society, that I should have been singled out among the many earnest co-workers in the labor which devolved upon us during the exacting period of the reorganization of the State, Councilor District and County Medical Societies upon County representation as the unit, to receive the magnificent physical expression of your approval. But what is far more expressive to me is the fact that you have seen fit to honor me with this showing of your love and esteem during my life time. A thousand times dearer to me is this thought than that after my life has passed away I may be deemed worthy of a place among "Connor's Archives of Michigan's Dead," honorable as such mention is. Feeling as I do, I trust others may be the recipients during their physical life of your love and esteem, that they too may be stim-

ulated by such lofty sentiments to give their best to our work, and that, as we honor ourselves, our profession may be honored among men.

Again, I would express my deepest gratitude for your beautiful gift. Coming as it does from my own beloved profession, year by year it will become dearer as the expression of the place I was fortunate to hold in your esteem.



### The Forty-second Annual Meeting.

The annual meeting of the State Society, held at Saginaw, May fifteenth and sixteenth, was one of the most successful held within recent years. All who were present agreed that there was in evidence throughout the sessions, a most noticeable earnestness on the part of those who participated in carrying out the program, and an unusual attentiveness on the part of the listeners. The arrangements, carefully planned by the local committee, were excellent and the entertainment lavish.

The attendance was the largest of any meeting since the one held in Detroit in 1903, the registration indicating that 341 members were present.

The House of Delegates held three sessions, the first, on Tuesday evening, being unusually well attended. The reports of standing and special committees were well prepared and well delivered by the respective chairmen. These reports will appear in full, together with the official proceedings, in the July issue of the JOURNAL.

In the report of the Council, Dr. C. B. Burr paid an eloquent tribute to the memory of Doctor Herdman, formerly Councilor of the First District. The work of Dr. McCormack was reviewed and it was shown that post-graduate courses had been established in six county societies. The paid membership for 1906 was given as 1,873, and the present roll as 2,011. The prompt collection of dues was urged. The financial condition of the society was shown to be excellent, \$21.62 having been added

to the treasury during 1906, despite the unusual appropriations of \$500 for the San Francisco sufferers and \$200 for Dr. McCormack's work. On January first, the sum of \$1,227.08 was in the hands of the Treasurer, all obligations having been met.

The Committee on Legislation and Public Policy reported through Dr. J. W. Inches, of St. Clair County. It was shown that the bill amending the Criminal Mal-practice Act, which was prepared pursuant to a resolution offered in the Gynecological Section at the Jackson meeting, had been referred to the House Committee on Judiciary, and that this committee had refused to report it, "on the ground that such an amendment would lessen the probability of a conviction by rendering unavailable, evidence which can now be used. Your committee, after further consideration, is of the opinion that the point raised by the Committee on Judiciary is well taken and nothing further has been done in the matter." The bill prepared by the Committee on the Patent Medicine Evil and presented by the Legislative Committee, was found by the House Committee on Public Health to be entirely too drastic. A substitute bill, conforming more strictly to the provisions of the national law, has therefore been prepared. It was shown by the committee's report that the L'Esperance Bill, the text of which was published in full in our April issue, is not receiving the endorsement it deserves from the members of the State Society.

Resolutions were later unanimously adopted endorsing the L'Esperance Bill and the Secretary ordered to transmit a copy of the resolutions to each member of the Legislature.

Dr. G. A. Hafford, Chairman of the Committee on the Patent Medicine Evil, said, in his report, that the committee had made an effort to call the attention of the lay press to the pernicious effects

of much of the advertising carried in the periodicals of the state. A letter had been sent to the Secretary of the Press Association, but it apparently received no attention, as the committee did not receive even the courtesy of a reply. The committee had been able to get resolutions before religious and ministerial conventions on several occasions regarding the advertisements in the religious press. "With the medical press we have as great difficulty as with any other. Not alone the cheaper and irresponsible publications which cater to the uneducated physician and whose main assets are the voluminous advertisements, which fill their cheaply printed pages, but some of the higher grade of medical journals, and even our own organ might, in the opinion of the committee, be open to criticism." The committee's bill relative to pure food and drugs was reported as in the hands of the Attorney General of the State. It was recommended that the members of the society keep copies of the reprinted Collier articles on their office table.

On recommendation of the Council, the House of Delegates defined the position of the STATE JOURNAL, regarding advertisements as follows: "Advertisements of remedies approved by the Council of Pharmacy of the American Medical Association may be admitted. Remedies disapproved by the Council shall be excluded. Remedies advertised to the laity shall be excluded. The JOURNAL does not necessarily approve of the remedies, articles, hospitals, schools, etc., advertised. Reading notices in 'The Advertiser' shall be excluded after existing contracts expire. The JOURNAL invites professional criticism of individual advertisements. The editor is instructed to exclude advertisements of remedies which seem questionable."

Dr. W. R. Parker, Chairman of the Committee to Encourage the Systematic Examination of the Eyes and Ears of



School Children, reported that the State Board of Health and the State Board of Education had adopted resolutions to the effect "that measures be taken by boards of health, boards of education and school authorities, and, where possible, legislation be secured looking to the examination of the eyes and ears of all school children, that disease in its incipency may be discovered and corrected." The attention which this matter is receiving in other states was reviewed.

A resolution was adopted requesting the Committee on Legislation and Public Policy to ask the Legislature for an appropriation of \$500 to be placed at the disposal of this committee.

Dr. Flemming Carrow, Michigan Member of the National Legislative Council, American Medical Association, reported regarding the work accomplished during the year.

One session of the general body was given up to the consideration of the contract practice problem. The Committee on Contract Practice, through Dr. T. S. Langford, of Jackson, gave a detailed report of conditions throughout the State.

The conclusion of the report is as follows: "Your committee would call attention to certain facts brought out by correspondents in their reports. Not all forms of contract practice should be subject to condemnation, as for example, contract practice as carried on for certain mining corporations. In some communities, men of unquestionable moral integrity and high standing in the profession have been and a few seem yet to be engaged in forms of contract practice which seem to the committee objectionable. In most instances local societies are totally unable to control the evil without serious danger of disruption, although a few counties, notably Marquette, Mason and Emmet, have succeeded in holding the practice in check.

The following resolutions were adopted:

WHEREAS, In the State of Michigan there is a large amount of medical and surgical service rendered to individuals in accordance with some form of contract entered into by physicians and certain organizations, and

WHEREAS, This form of practice in a great number of instances works to the serious detriment of the interests of the profession and of the general public, and

WHEREAS, This form of practice is not diminishing, but on the contrary seems to be increasing at a rapid rate; be it

*Resolved*, That the Michigan State Medical Society heartily commends and supports judicious action of the component County Societies to the end that objectionable practice of this character be abolished or limited as far as possible; and be it further

*Resolved*, That the Secretary of each County Society be urged to file with the State Secretary as much data as possible regarding the character of such contracts and the name of organizations seeking to make such arrangements with physicians with an approximation of the number of patients affected thereby, and to secure as complete a list as possible of members who agree *not* to do contract practice and that these reports and names be compiled and published in a regular issue of the JOURNAL. Further, be it

*Resolved*, That the State Secretary send a copy of these resolutions to all employers' liability companies, sick benefit and fraternal organizations doing business in Michigan which solicit physicians to enter into such contracts.

WHEREAS, The average medical student graduates with little other than intuitive knowledge regarding the ethics of his profession, be it

*Resolved*, That the Council endeavor to establish in each Michigan Medical School a course of instruction upon this vital topic, and that special attention be thereby called to the evils of contract practice and the division of fees, and to the importance of early affiliation with the County and State Society.

Dr. A. P. Biddle was presented with a magnificent silver platter as a token of appreciation for his six years' of arduous labor as secretary-editor. Dr. Burr, chairman of the council, made the pres-

entation speech. (See page 300.)

Resident honorary members were elected as follows: Dr. James Willson, Flint; Dr. Samuel Catlin, Tecumseh; Dr. Mary Towsley, Kalamazoo.

The officers chosen for 1907-1908 were: President, Dr. Herman Ostrander, Kalamazoo; first vice-president, Dr. W. R. Parker, Detroit; second vice-president, Dr. E. E. Curtis, Saginaw; third vice-president, Dr. H. J. Kinne, Frankfort; fourth vice-president, Dr. H. L. Bower, Greenville. Drs. A. E. Bulson, of Jackson, and B. H. McMullen, of Cadillac, were reelected councilors for the second and ninth districts. Dr. A. L. Seeley, of Mayville, was chosen councilor of the eighth district, and Dr. C. J. Ennis, councilor for the twelfth district.

The section officers for the coming year are: Medicine, Dr. D. M. Cowie, Ann Arbor, chairman, and Dr. G. F. Inch, Kalamazoo, secretary. Surgery, Dr. H. B. Garner, Traverse City, chairman, and Dr. J. E. Gleason, Detroit, secretary. Gynecology and Obstetrics, Dr. A. N. Collins, Detroit, chairman, and Dr. C. G. Parnall, Jackson, secretary.

Drs. H. O. Walker, Detroit, and Reuben Peterson, Ann Arbor, were chosen delegates to the American Medical Association for two years, with Drs. D. K. Black, Greenville, and C. H. Johnston, Grand Rapids, as alternates.

Manistee conducted an enthusiastic and successful campaign for the 1908 meeting. The time of the meeting was left to the officers of the society.

The most attractive event of the meeting was the address by Dr. J. B. Herrick, Professor of Medicine in Rush Medical School, on "Methods of Diagnosis." The subject was treated in a broad and philosophic manner and was much appreciated.

Those registered were:

Bay—F. A. Baird, Chas. H. Baker, S. L. Ballard, R. W. Brown, Morton Gallagher, J. W.

Hauzhurst, A. W. Herrick, E. A. Hoyt, William Kern, H. B. Landon, John McLurg, H. H. Merriman, D. J. Monroe, G. W. Moore, F. E. Ruggles, C. A. Stewart, D. A. Stone, C. M. Swantek, Mary A. Williams, W. W. Williams.

Benzie—E. J. C. Ellis, H. J. Kinne.

Branch—W. A. Griffith, H. W. Whitmore.

Cass—E. A. Planck.

Calhoun—A. W. Alvord, Edwin M. Chaney, W. S. Godfrey, Geo. C. Hafford, Wilfrid Haughey, W. H. Haughey, A. F. Kingsley, J. L. Ramsdell.

Cheboygan—W. Earle Chapman, C. B. Marks.

Chippewa—R. Bennie, E. H. Webster.

Clinton—J. T. Abbott, E. Schemer, James E. Taylor.

Delta—A. L. Laing, G. W. Moll.

Eaton—A. H. Burleson, W. H. Enders, W. E. Newark, B. D. Niles, A. R. Stealey.

Genesee—W. G. Bird, B. E. Burnell, C. B. Burr, G. V. Chamberlain, S. T. Conover, J. M. Galbraith, A. Goodfellow, J. W. Handy, J. H. Houston, D. S. Jickling, M. S. Knapp, J. G. R. Manwaring, H. R. Niles, E. D. Rice, G. W. Robb, Edward C. Rumer, W. J. Wall, O. S. Wheeler, A. S. Wheelock.

Grand Traverse—Sara T. Chase, H. B. Garner.

Gratiot—D. K. Andrews, E. A. Bagley, I. N. Brainard, A. J. Ervey, E. P. Felch, C. B. Gardner, B. C. Hall, Stiles Kennedy, E. T. Lamb, A. Stealy.

Hillsdale—Thos. H. E. Bell.

Houghton—W. T. S. Gregg, J. R. W. Kirton, A. I. Lawbaugh, W. E. McNamara, George W. Orr.

Huron—B. Friedlander, D. J. McCall, W. T. Morrison, J. L. Walsh.

Ingham—Clara M. Davis, Guy M. Dunning, Samuel Osborn, J. G. Rulison, E. F. Shaw, L. W. Toales.

Ionia—C. S. Cope, F. W. Martin, G. W. Moore.

Iosco—J. J. Fitzgerald, J. R. Appelbe.

Isabella—F. Freeman Gillett.

Jackson—A. E. Bulson, R. Grace Hendrick, T. S. Langford, C. G. Parnall, D. E. Robinson, F. W. Rogers, Martha C. Strong, E. C. Taylor.

Kalamazoo Academy of Medicine—Ralph E. Balch, J. W. Bosman, Edw. J. Bernstein, A. W. Crane, G. F. Inch, O. A. LaCrone, W. L. McBeth, C. H. McKain, Herman Ostrander, Della P. Pierce, J. T. Upjohn, A. H. Rockewell, Benj

A. Shepard, Frederick Shillito, E. P. Wilbur, A. S. Youngs.

Kent—E. Bigham, J. D. Brook, Wm. Fuller, J. G. Huizinga, N. H. Kassabian, T. W. Koon, F. J. Lee, A. J. Patterson, Louis A. Roller, S. L. Rozema, Richard R. Smith, R. H. Spencer, J. B. Whinery, W. G. Young.

Lapeer—G. L. Chamberlain, John Eggleston, John V. Frazier, E. A. Jones, H. E. Randall, M. E. Williams.

Lenawee—R. M. Eccles, Isaac L. Spalding, D. L. Treat.

Livingston—J. E. Browne.

Manistee—Wm. E. Coates, Jas. A. King, Harlen MacMullen.

Marquette—Theo. A. Felch, A. W. Hornbogen.

Mason—F. W. Heysett, W. H. Taylor.

Mecosta—B. L. Franklin, L. E. Kelsey, Joseph McNeece, F. W. Noble.

Midland—W. H. Brock, W. A. DeFoe, E. J. Dougher, C. Sjolander, E. R. Swift.

Monroe—Wm. F. Acker.

Montcalm—W. H. Belknap, D. K. Black, R. H. Blaisdell, H. L. Bower, E. M. Highfield, Jas. Purdon.

Muskegon—Charles F. Smith.

Oakland—E. A. Christian, G. W. MacKinnon.

Osceola-Lake—E. Nelson Heysett, A. Holm.

O. M. C. O. R. O.—S. E. Hooper, C. H. O'Neil, W. G. Young.

Ottawa—D. G. Cook, H. J. Poppen.

St. Clair—J. L. Chester, J. W. Inches, A. D. MacLaren, G. S. Ney, J. S. Platt, Charles B. Stockwell, Alex. Thomson, A. E. Thompson, Mortimer Willson.

St. Joseph—Blanche M. Haines.

Saginaw—G. L. Alger, D. E. Bagshaw, A. L. Bailey, B. H. Beckwith, N. R. Bradley, Thos. E. Briggs, Harriet V. B. Brooks, J. D. Bruce, R. F. Bruce, Frances Carter, W. B. Clarke, M. W. Clift, D. B. Cornell, B. F. Crane, E. E. Curtis, W. L. Dickinson, Wealthy Dibble, F. W. Edelman, C. W. Ellis, W. F. English, F. B. Florentine, Benj. Franklin, F. W. Freeman, J. W. Freeman, G. H. Ferguson, H. E. Gerber, Arthur Grigg, C. L. Gruber, W. K. Kahn, Karl Kanzler, J. W. Kemp, A. E. Leitch, Martha L. Longstreet, J. C. McCormick, Thomas McEwen, Robert McGregor, H. M. Leach, Jas. W. McMeekin, R. Campbell MacGregor, J. Neil MacLane, H.

W. Montgomery, M. F. Morse, H. P. Meyer, W. J. O'Reilly, S. C. J. Ostrom, F. E. Parkinson, J. H. Powers, C. P. Ramoth, Emil P. W. Richter. A. S. Rogers, B. B. Rowe, Flora H. Rich, C. H. Sample, S. I. Small, Fletcher S. Smith, C. T. Starker, G. W. Stewart, T. M. Williamson, G. R. Wilson, P. S. Windham.

Sanilac—J. W. Scott, A. W. Truesdale.

Shiawassee—J. N. Eldred, Edwin Elliott, J. Haviland, A. M. Hume, W. C. Hume, W. E. Ward, P. S. Willson.

Tri-County—B. H. McMullen, G. D. Miller, Otto L. Rickerd.

Tuscola—T. P. Bender, B. C. Bradshaw, O. G. Cowley, W. C. Garvin, F. Hammond, J. E. Handy, Jas. H. Hays, John MacKenzie, J. E. Maurer, A. L. Seeley.

Washtenaw—Wm. F. Breakey, Bishop Canfield, C. B. G. de Nancrede, S. Fouch, Hugo A. Freund, O. Griffin, H. Klingman, J. G. Lynds, A. R. Peebles, Reuben Peterson, James C. Sales, Frank Smithies, J. A. Wessinger.

Wayne—Emil Amberg, J. A. Attridge, H. H. Begle, J. N. Bell, A. P. Biddle, A. W. Blain, Jr., W. E. Blodgett, G. F. Britton, G. V. Brown, Flemming Carrow, J. H. Carstens, Grace M. Clarke, A. N. Collins, Leartus Connor, James E. Davis, W. M. Donald, Johann Flinterman, J. E. Gleason, G. G. Gordon, Preston M. Hickey, L. J. Hirschman, Vernon J. Hooper, E. M. Houghton, Florence Huson, W. H. Hutchings, David Inglis, C. H. Judd, G. A. Kirker, Daniel LaFerte, Oliver H. Lau, H. W. Longyear, Theodore A. McGraw, J. A. McVeigh, F. J. W. Maguire, W. P. Manton, W. F. Metcalf, C. G. Miner, T. H. Newberry, Carl S. Oakman, Anna O'Dell, W. R. Parker, Roland Parmeter, G. O. Pratt, W. A. Repp, F. W. Robbins, J. W. Rothacher, R. S. Rowland, Benjamin R. Schenck, Burt R. Shurly, Ernest L. Shurly, Frank Burr Tibbals, H. R. Varney, V. C. Vaughan, H. O. Walker, Frank B. Walker, A. B. Wickham, Hal C. Wyman, H. W. Yates.

## Book Notices

**Osler's Modern Medicine.** Its Theory and Practice. In Original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 1,000 pages each; illus-



trated. Volume I. Cloth, \$6.00 net. Lea Brothers & Co., Philadelphia, 1907.

In many respects this new work, edited by Osler and McCrae, promises to be the most important of the present decade. That there is a distinct field for a set of volumes, containing more extensive information than that found in the ordinary text book, there can be no doubt. It is planned that the whole field of internal medicine will be systematically covered by a series of monographs, written by men who are recognized authorities and these monographs will be so arranged that they will bear the proper relation to one another and to the science of medicine.

No other man in the profession is so well equipped for such a work as is Osler. Himself possessed of a wide knowledge, familiar with the literature, acquainted with the men all over the world who are doing things, Osler has that intuitive power of knowing what men can do and who can do a certain task best.

Associated in the editorial work with Osler, is McCrae, who has had many years experience both in practical medicine and in literary work. He is one of the best of the younger generation of clinical teachers and is thoroughly conversant with the needs of both graduate and undergraduate students.

In the introduction the editor says: "The work is designed primarily for the practitioner who wishes to keep himself informed of the existing state of our knowledge in clinical medicine. The first consideration in a work of this kind is that it shall be helpful. \* \* \* \* The authors will be found to have simplified abstruse and complicated knowledge, and to have presented it in a form readily assimilable by the men who have to use it. The hope of the profession is with the men who do its daily work in practice. Our labors are in vain—all the manifold contributions of science, the incessant researches into the complex problems of life, normal and perverted, the profound and far-reaching conclusions of the thinkers and originators—all these are sounding brass and tinkling cymbals unless they result in making men better able to fight the battle against disease, better equipped for their ministry of healing. The carrying out of new methods of treatment, the exchange of the old for the new weapons and methods of warfare, these rest with the rank and file of the profession who make effective and translate into practice the new knowledge."

It is planned to issue a new volume every three months.

The first volume, which has now come to hand, contains an introduction by the editor himself, which he entitles "The Evolution of Internal Medicine"—a most interesting history of medicine from pre-Hippocratic times to the present day, tracing the growth of the science and art in the various schools and countries which contributed to build up the existing structure of knowledge. To this is added a forecast of the lines on which further development would most fruitfully proceed. The whole introduction is, of course, scholarly and epigrammatic, marked by the keen observation of the trained physician, who is also a man of the world, full of wisdom and altogether delightful reading.

Dr. J. G. Adami, of Montreal, begins the body of the volume with an article on "Heredity and Predisposition," in which he asserts, with much emphasis: "It is impossible for there to be inheritance proper of infectious diseases. There is no such thing as inherited smallpox, inherited tuberculosis, or hereditary syphilis. \* \* \* \* This, however, is not the same as stating that no inheritance of any order can occur in connection with specific disease." The article is thoroughly up to date, and from the charm of the author's style, this most important subject is made very easily understood.

"Auto-intoxications," from the pen of Dr. Englebert Taylor, of San Francisco, is another of these conclusive and exhaustive articles on a difficult subject which will make Osler's *Modern Medicine* the recognized authority for the next quarter of a century. His treatment of the question of Gastro-Intestinal Auto-Intoxication is of the most illuminating character, and is full of helpful suggestions to the general practitioner in the treatment of diseases consequent on malnutrition.

Nearly 60 pages are devoted by Dr. Charles F. Craig, U. S. A., to the consideration of "Malarial Fevers." The article is comprehensive, accepting, of course, the theory of transmission by mosquitoes, and pointing out that a fever which is not cured by the proper administration of quinine is not of malarial origin. His suggestions as to prophylaxis are in every respect valuable.

Other thoroughly practical clinical articles are those by Dr. Thomas B. Fletcher, of Johns Hopkins, on "Diabetes and Gout;" by Dr. J. M. Anders on "Obesity;" and by Dr. George F. Still, of London, on "Rickets." The scientific physician

will regard the profoundly scholarly article on "Metabolism, Normal and in Disease," by Chittenden, of Yale, as of fundamental value. There are excellent articles, also, by Drs. Alfred Gordon and David L. Edsall, of Philadelphia, Alexander Lambert, of New York, F. G. Novy, of Ann Arbor, James H. Wright, of Boston, and others.

From the mechanical standpoint the book leaves little to be desired. The red cloth binding and heavy gilt lettering are most attractive.

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**Tumors, Innocent and Malignant.** Their Clinical Characters and Appropriate Treatment. By J. Bland-Sutton, F. R. C. S., Surgeon to and Member of the Cancer Investigation Committee of the Middlesex Hospital, etc. Fourth edition, revised. Octavo; 675 pages; 355 illustrations. Chicago: W. T. Keener & Co., 1907. Price, \$5.00.

Bland-Sutton's work on tumors is well known. In this new edition there has been an addition of much new matter and a thorough revision of the text. An account of the etiology of cancer is given in an interesting way, but no attempt to reconcile the three main theories is made. A new chapter on chorion-epithelioma has been included, which, while by no means complete, is an excellent addition.

The classification adopted is a practical one: Group (1) connective tissue tumors; (2) tumor diseases of the teeth; (3) epithelial tumors; (4) tumors arising from the chorionic villi; (5) teratomata and dermoids; (6) cysts. Such a grouping leaves much to be desired, when considered from the viewpoint of the pathologist, but it has many advantages for the surgeon and clinician.

The chapters on bone sarcoma and neuromata in general are among the best in the book. Carcinoma of the breast might well receive more attention; only ten pages are devoted to this most important topic.

The references at the end of each chapter, and the excellent index are to be commended.

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**A Study of the Human Bloodvessels in Health and Disease; a Supplement to "The Origin of Disease."** By Arthur V. Meigs, M. D., Physician to the Pennsylvania Hospital. Octavo; 136 pages; with 123 illustrations. Philadelphia and London: J. B. Lippincott Company, 1907.

So far as we know, this is the only book which deals exhaustively with the human blood vessels.

It is a valuable, even if erratic, monograph, giving the author's personal knowledge gained through a number of years of attention to the subject.

After introductory chapters, there are sections describing the diseases of blood vessels in general, diseases of the radial arteries and veins, and diseases of the blood vessels of the various organs. Each chapter is filled with information, much of which will appeal to the reader as deserving of thought. We have rarely read a book which gives us more new ideas, or made us think more about the old ideas than did this. Many of the author's statements are contrary to generally accepted views, and undoubtedly will not be accepted by many. Nevertheless, they should be accorded careful attention.

The illustrations are a special feature and are beautifully done, being drawn directly on steel plates with the aid of the camera lucida.

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**Biographic Clinics.**—Vol. IV. By George M. Gould, M. D., Editor of *American Medicine*. 12 mo., 375 pages. Cloth, \$1.00 net. Philadelphia, P. Blakiston's Sons & Co., 1906.

This is a continuation of Dr. Gould's remarkable essays on the lives of some notables of the past who had wretched health, due, according to the author, to an uncorrected eye strain. Whatever one's conviction may be as to the truth of Gould's theory, he cannot but admire his literary ability and he cannot fail to enjoy the reading of these essays. In this volume, there are biographies of Balzac, "the hero of overwork;" Tchaikovsky, the composer; Flaubert, Lafcadio Hearn and Berlioz. Throughout, numerous passages from autobiographies and letters are quoted in support of the eye strain idea.

We have found the most interesting the chapter on Balzac, than whom no author ever lived a more unhygienic life, at least in regard to eating and working. That he had defective eyes seems plausible, but that all his ills were due to these defects admits of some debate.

Other chapters in the book are: "Progress," "The Cause, Nature and Consequences of Eye Strain," "A Study of the Failure in Ophthalmic Progress," "The Exaggeration and Hobby-riding of the Eye Strain Theorist," "The Eye Strain Origin of Epilepsy."

**Biographic Clinics.**—Vol. V. By George M. Gould. Uniform with the above. Philadelphia, P. Blakiston's Sons & Company, 1906.

This volume contains a chapter on "Biology and Ophthalmology;" eleven chapters, each one of which is a case history from the author's experience; a chapter on "The Mysteries and Sources of Suicide" and others, such as "Ten Types of Ophthalmic Charlatanism," "Eye Strain and Crime," and "The Ocular Origin of Eye Strain."

Most of these chapters are reprinted from articles published by the author in various journals, articles which have occasioned not a little discussion. After reading them, one has a feeling of discontent, for either the author is wrong, or all of us are neglecting a certain class of patients, whose ills are variously diagnosed as indigestion, hysteria, epilepsy or neurasthenia. As it is unquestionably well for every one, now and then, to pause and wonder if he is doing the best for his patients, we recommend these volumes, especially the last, as unsurpassed for stimulating this thought. The statements made will be variously judged, according to the experience of the reader.

These volumes are attractively bound in red cloth.

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**A Text-Book Upon the Pathogenic Bacteria.**—For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. New (5th) Edition. Octavo volume of 647 pages, fully illustrated, a number in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$3.50 net.

This text book continues to be popular and is widely used in medical schools. It contains excellent chapters on the Evolution of Bacteriology, Infection and Immunity. The laboratory side is described in sections dealing with "The Methods of Observing Bacteria," "Sterilization and Disinfection," "Culture Methods," "Animal Experimentation" and "Differentiation of Bacteria."

Part II deals with "Specific Diseases and Their Bacteria," and is very satisfactory.

One may criticise the scope of the book, rather than the book itself. The author has confined his text to the pathogenic bacteria which makes it inadequate for the ordinary course in bacteriology, in which it is customary to begin with the study of non-pathogenic forms. One wonders why a discussion of opsonins is not included in this new edition.

The illustrations are good.

**Psychology Applied to Medicine.** Introductory Studies. By David W. Wells, M. D., Lecturer on Mental Physiology, Boston University Medical School. 12 mo., 141 pages, illustrated. Cloth, \$1.50 net. Philadelphia: F. A. Davis & Company.

The author has had several years' experience in lecturing to medical students and has put his lectures into book form. He believes that medical education has tended toward ultra-materialism, the psychological aspect being neglected. The matter in this book is an attempt, therefore, to bridge over the gap between psychology and medicine.

The first four chapters deal with reason, instinct, habit, sensation, and certain aspects of the special senses, more especially of sight.

Chapters V, VI and VII are especially entertaining and instructive. They deal with the history, methods and theories of hypnotism, in which the author has apparently done considerable experimentation. A very fair and impartial estimation of the value of hypnotism in medicine is given.

The last three chapters are given up to a discussion of the many forms of mental healing.

The subject matter of the book, too often neglected, is important and is here presented so concisely and in such an elementary style, that the volume can be recommended to all who have given these topics little attention. If one wishes to read along these lines, it is a good book to read first. A bibliography appended will suggest other well known works in which the subject may be further pursued.

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**A Text-Book of Pathology.** By Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania. Fifth Revised Edition. Octavo of 977 pages, with 399 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5.00 net; Half Morocco, \$6.00 net.

There are very few general text books of pathology in English. Stengel's is perhaps the best known. It is excellent so far as it goes, but one will look in vain for information in it beyond that which is very elementary. Inasmuch, however, as it has been the design of the author to prepare a work for the student and one therefore of moderate size, it is unfair to judge the work by higher standards.

It is well written, well illustrated, up to date, well printed and neatly bound. As a reference book for the practical man it is a success.



## County Society News

### CALHOUN.

Continuing the work of the post graduate course, the following subjects were prepared:

Ear Complications following Measles, Scarlet Fever, La Grippe, etc., Dr. R. D. Sleight, May 6, 1907.

Fractures, Dr. C. S. Gorsline; Dislocations, Dr. H. E. McLennan, May 20, 1907.

Starvation Treatment of Cancer, Dr. T. E. Sands, June 10, 1907.

Diseases of the Biliary Tract, Dr. J. H. Kellogg, June 24, 1907.

A. S. KIMBALL, *Sec'y.*

### DICKINSON-IRON.

We have about 28 physicians in our counties and 23 members of the Society. We are planning a rousing meeting for June.

H. S. SETHNEY, *Sec'y.*

### EATON.

Eaton County Medical Society had for its program, at its April meeting, a symposium on adolescence.

Dr. Lancaster, President of Olivet College, read a paper on "The Adolescent at Home and in the School."

Dr. Wilson, Pastor, M. E. church, Charlotte, spoke of "The Church's Influence During Adolescence."

Dr. Stimson, Eaton Rapids, delivered a paper entitled "The Duty of the Family Physician in Adolescence."

Judge Smith, of Hastings, whose paper was to have been "The Law as Applied to the Adolescent Period," was unable to be present.

The discussion was led by Superintendent Garrick, of Charlotte, and Superintendent Noral, of Olivet.

Many outside of the medical profession were present.

Dr. W. H. Enders having resigned, Dr. A. H. Burleson, of Olivet, was elected secretary-treasurer.

A. H. BURLESON, *Sec'y.*

### GRAND TRAVERSE.

#### Renal and Vesical Calculi.

M. S. GREGORY, M. D.

In the consideration of renal and vesical calculi we must look to their size and composition; to the character of the urine, symptoms, prognosis, and treatment. As regards size, calculi are classified as sand, gravel, stone, and calculi \* \* \* When concretions are deposited in unchanged urine they are said to be primary; those deposited in urine changed by fermentation are secondary. \* \* \*

Uric acid calculi are very common and constitute from 75 to 90 per cent of all calculi. They are always deposited in acid urine and are primary in the urinary tubules, giving in their passage the symptom-complex of renal colic. Under the microscope we find the uric acid crystals deposited as clusters or smooth spherical bodies, always being colored a reddish tinge. \* \* \*

The urates of ammonium, sodium and calcium form a very large class of calculi. Especially as they form a high per cent when combined with calcium oxalate. In children many calculi of the urates with uric acid are found. These uric acid calculi are small in size, light gray in color, and produce infarcts in the kidneys. These infarcts occur from the second to the tenth day, but are never found in the still born. The uric acid stones are often found in febrile children, always deposited in acid urine.

Calcium oxalate calculi are large rough masses commonly spoken of as "mulberry" masses. However, they are not always large, but some may be as small as hemp seeds. The nucleus is usually uric acid or one of the urates, and always deposited in acid urine. When the stone becomes large and rough, cystitis may set in and render the urine alkaline by fermentation.

\* \* \* Cystin and xanthin and calcium phosphate are rare concretions. \* \* \* One of the most important concretions, from a clinical standpoint, is the ammonio-magnesium phosphate stone, as it occurs in most cases of infected bladder. \* \* \* Whenever ammonio-magnesium phosphate crystals are found in the urine we may be sure of infection and always suspect a stone.

\* \* \* The reaction of the urine is always the determining factor in the formation of any deposits. In acid urine the concretions are most always uric acid and this is well indicated when the cooling yields a precipitate of uric acid crystals. \* \* \* When calcium oxalate crystals are

found, a calcium oxalate stone may be suspected. \* \* \* The concretions found in alkaline urines are usually vesical in origin and are deposited upon primary renal calculi. The most common are the mixed phosphates. \* \* \*

Renal stones may or may not produce symptoms; if they do they give usually the complex spoken of as renal colic. A sudden sharp paroxysm of pain felt first in the lumbar or hypogastric region, then extending down the line of the ureter to the scrotum and end of the penis. Vesical irritation and tenesmus are common. Fainting and collapse are not infrequent. The pain may disappear as suddenly as it appeared. \* \* \* Frequent urination is also another symptom, especially during the day. This symptom depends on the irregularity of the stone, the desire to urinate being proportionate to the irregularity. One must not confuse this symptom with the desire to urinate that comes from an enlarged prostate. In case of enlarged prostate the frequent desire to urinate comes at night. The pain is characteristic, being a smarting, burning pain, worse at the end of micturition, because at that time the stone lies in contact with the mucous membrane. As the stone gets larger and smoother the pain becomes less and may disappear.

Another important symptom is the sudden interruption of the stream during micturition. This symptom is produced by the valve action of the stone at the neck of the bladder. Sometimes the contact of the stone with the mucous membrane causes bleeding, which may be an important symptom. \* \* \* After taking into account the above symptoms we are not certain of the stone until we have sounded with an urethral sound or searcher. This is the only true diagnosis. Prognosis is good when we are able to remove every particle of the stone. \* \* \*

The non-operative treatment has its greatest efficacy in prophylaxis. Large quantities of water for the lithemic, \* \* \* no meats for those having uric acid in urine. A mild laxative of calomel and soda is often indicated but prolonged catharsis with salines is contra-indicated because it concentrates the urine. Operative treatment is always indicated if the calculi are formed. \* \* \* Of course the size and composition of the stone and the condition of kidneys, prostate, and bladder, and age of the patient, will influence the question of operation. \* \* \* The median perineal lithotomy is a very successful treatment.

Discussion by Drs. H. B. Garner, James Canavan, Wilhelm, and Martin.

M. M. CANAVAN, *Sec'y.*

#### IONIA.

The second session of the season of the Ionia County Medical Society was held in Ionia on April 18. The members visited the Michigan Reformatory, witnessed clinics and operations at the hospital, were banqueted at the Hotel Bailey, and the evening was taken up with postprandial remarks, reading of reports, transaction of business, appointment of committees, and the reading of a paper on Pneumonia by Dr. Geo. P. Winchell, of Ionia. The committee to co-operate with the Tuberculosis committee of the State Society was appointed as follows: Dr. W. F. Braley, Saranac; Dr. C. B. Gauss, Palo; Dr. J. J. McCann, Ionia; Dr. G. P. Winchell, Ionia; Dr. H. O. Haines, Ionia.

C. S. COPE, *Sec'y.-Treas.*

#### SAGINAW.

At a meeting of the Saginaw County Medical Society on May 8, Dr. F. B. Florentine read a paper on

#### Post-Operative Abdominal Fistulae.

By post-operative abdominal fistulae I do not mean fistulous openings as caused by systemic, or organic internal lesions, such as result from gall-stones, or empyema of various organs, but rather to that which is only too often induced by a faulty, reckless, operative technic in abdominal surgery. For example, in overlooking foreign bodies, such as sponges, forceps, gauze, etc., in the abdominal cavity. Of course, accidents will occasionally, and unavoidably, happen with most careful and skillful surgeons. However, it behooves us to be exceedingly careful in these operations, as the consequences are sometimes very serious. I believe, however, that by far the most frequent causes of abdominal fistulae are displaced, or floating, if you please, ligatures and sutures. At least, it proved so in my experience. We know that silk ligatures, for instance, when thoroughly sterilized, cause no evil consequences, when applied to healthy tissue, as they are either encysted, or slowly removed by leucocytes. But when the tissues of the pedicle are infiltrated with inflammatory products, and especially when the Fallopian tube is septic, the ligature, instead of being absorbed or encysted excites inflamma-

tion and becomes surrounded with pus, drops off, an abscess is formed, and frequently opens through the abdominal cicatrix, forming a sinus therein. And the latter will persist for months or years, until the ligature is found and removed, as anyone knows who has had any experience with these troublesome cases. In support of my statements, allow me to briefly report among others, some cases of abdominal fistulae, caused by ligatures and sutures in my own practice.

Mrs. K., aged 36, quite well and strong, with the exception of a small abdominal fistula of nine months' duration, following double ovariectomy. After abdominal section, I found nothing remarkable in the cavity with the exception of a few adhesions, and a pedicle, minus the usual ligature; the other, showing evidence of one. Then, after thoroughly searching, and dissecting the abdominal wall, for the source of trouble, I found it—a braided-silk ligature of large size, and well preserved. The operation was successful, and the patient is at present enjoying perfect health, with no evidence of fistula.

Mrs. A. K., aged 40. Five months after ventro-fixation of the uterus, I was consulted by her in regard to a fistulous opening which refused to heal. I operated and found a large chromicized catgut suture as the cause of trouble.

Mrs. C., 38. Poor health, and thin; about 14 months after a left ovariectomy, suffered from fistula since operation, and submitted to another operation in order to close opening. After section, I found the right ovary diseased, and removed it, in hope to heal the fistula, but failed. About two months ago, she again submitted to another operation for the closure of said fistula. After carefully and extensively dissecting the abdominal wall I, at last, found the cause of trouble—a silkworm gut suture which evidently had been used in closing the belly, and was lost in a so-called stitch-abscess.

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WAYNE.

On May 6th, a meeting was held to discuss the possibility of the Society acquiring a meeting place and library. Dr. L. J. Hirschman spoke of the necessity of a meeting place other than the one used at present, of the difficulty of obtaining a suitable hall, and of the desirability of immediate steps being taken toward securing a medical building. In March, a number of members

gathered informally to discuss the project and a provisional committee appointed to look over the situation.

Dr. Leartus Connor read an account of the beginning of the Cleveland Medical Library. Dr. H. M. Rich showed how the Boston Medical Library had grown from a small beginning, and Dr. B. R. Schenck sketched the history of the years of effort required to establish a home for the New York Academy of Medicine and the influence which the library has had upon medical affairs in New York.

A committee was authorized to devise ways and means for acquiring a building fund.

The election, held on May 21st, was largely attended, 197 ballots being cast. The officers elected were: President, Dr. A. N. Collins; vice-president, Dr. Kenneth Gunsolus; secretary-treasurer, Dr. W. D. Ford (re-elected); directors, Drs. J. N. Bell, H. W. Yates, G. L. Kiefer, P. M. Hickey, Florence Huson; executive committee of defense league, Drs. G. L. Kiefer and A. P. Biddle.

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### Correspondence.

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Tecumseh, Mich., May 18, 1907.

Dr. B. R. Schenck,  
Secretary M. S. M. S.,  
Detroit, Mich.:

Dear Doctor: Please allow me to return to yourself and the State Medical Society my sincere thanks and heartfelt gratitude for the unlooked for and unexpected honor bestowed upon me, in my election as an honorary member. My next year will be my eightieth birthday and with fifty-six years as a physician, makes me feel that my race is fully run.

Again thanking you all,  
Truly yours,

SAMUEL CATLIN.

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### SOME IMPRESSIONS GAINED FROM VISITING THE LARGE HOSPITALS IN ENGLAND.

Angus McLean, M. D.  
Detroit.

Upon visiting the larger hospitals of England a person becomes impressed with the magnitude of these institutions. The majority of them aver-



age from 400 to 500, and some have 1,000 beds; the question naturally arises as to how they are supported. There are 95 hospitals in the city of London, only four of which have paying departments, that is where patients pay for their care. Of the other 91, which are general and special institutions, no charge is made to the patient. Some of these have a nominal bequest from the patients; in most of the hospitals for women the patients are required to furnish comb, brush and soap. In some of the special hospitals the patients are required to furnish a change of linen, while in others they are charged 6d a week for laundry. In two or three of the large neurological institutions 1s per week is charged for tea and coffee, when served. All the larger hospitals, such as St. Bartholomew's, London Hospital, St. Peter's, St. Thomas's and St. Mary's, accept all patients free of charge.

There is only one hospital in London, St. Bartholomew's, that has investment funds sufficient to maintain it. This is the oldest charitable institution in England, and was founded in 1123.

The city or municipality has no institution of its own. All institutions are supported by investments, legacies, voluntary contributions and different hospital funds. They have what is known as the Sunday Hospital Fund, the Saturday Hospital Fund, League of Mercy Fund, and the City of London has also a fund known as the Prince of Wales Fund. These funds are placed in the hands of a central committee which distributes the proceeds among the different charitable institutions.

The Sunday Hospital Fund for London amounts to about \$20,000 annually—while the Saturday Hospital Fund (contributed largely by the working men) amounts to about one-half that amount. Liverpool, with a population of about 500,000, has an annual Sunday Hospital Fund of over \$70,000. Leeds, with a smaller population, has an annual Saturday Hospital Fund of \$38,000. The League of Mercy is composed largely of ladies; they solicit funds, give concerts and entertainments, the noted artists denoting their services. In this way this League raises several hundred thousand dollars each year.

There are within the City of London 15 medical schools besides the post-graduate schools, the Royal College of Physicians and the Royal College of Surgeons; there are also 130 free dispensaries. These medical schools are all connected with some large general hospital. Outside of the City of London there are 30 medical schools in

the United Kingdom, so there is no lack of opportunity for medical study, and always an overabundance of clinical material. There are several prominent medical centers in England, outside of London, viz., Oxford, Birmingham, Leeds, Newcastle, Manchester, Sheffield and others, each one having its noted medical men. The city of Leeds is situated in the northern portion of England and has a large general infirmary founded in 1767, with over 400 beds which are well filled. This institution has become well known to the medical profession throughout the world by its noted medical men. In this institution is a statue of William Hey, well known to anatomists by the ligament named after him, "Hey's ligament." There are also statues here of Wheelhouse, McGill and others. In this institution there is a rather unpretentious, somewhat dingy operating theater in which has been done operative work that has done so much to advance the surgery of the gall-bladder and biliary ducts. This is the theater in which A. W. Mayo Robson began his work, about a quarter of a century ago, which has made his name familiar to every reader of recent surgical literature. After becoming noted, he located in London, where he now resides and practices. Mr. Moynihan, who was his assistant at this institution, received the appointment upon the resignation of Mr. Robson and has since made himself well known by his work and the writing of his books on gall stone surgery and abdominal surgery which have had such a wide sale in our country. As his name would indicate, he is of Irish descent, but born in England. This is one of the interesting surgical points of England at present, many foreign physicians and surgeons go to Leeds to see this man and his assistants do their operations. There is nothing prepossessing about this institution or its operating room, and when you wonder why it has become so noted you can only say it is by the large amount of material present and the willingness of the operator to make the best use of the same. Two days a week are given up to operating in this institution by Mr. Moynihan, from 8 to 10 gall-stone and stomach operations being done each day. Surgeons who have visited a number of institutions in England say that, in their opinion, the best surgical work here is done in Leeds. There are several other good surgeons connected with the infirmary.

Suprapubic prostatectomy after the method of Mr. Freyer has become very popular here and one of the most interesting surgical clinics at

the present time given in London is that of Mr. Freyer's, held at St. Peter's Hospital, for stone and bladder diseases. Operations are done here twice a week; the gallery space is more than crowded each day and mostly by foreigners. This operation is the one operation accepted by all English surgeons for prostatectomy. I have seen five different surgeons remove the prostate and they all chose the suprapubic method. The perineal method was not even mentioned or considered by any one of them. It makes no difference as to the position or size of the glands; they are all removed suprapubically.

For the medical men the most interesting point in England at present is Wright's (opsonic) laboratory. Medical men from all parts of the country are here visiting this laboratory. Dr. Wright has no hospital appointment, but is connected with the St. Mary's Medical School and works at St. Mary's General Hospital. His laboratory is a rather small affair situated in an obscure corner, in the rear of the institution. You can scarcely realize upon entering it that you are in the laboratory and in the presence of the physician who has recently caused so much interest in the medical world. When I visited the institution, he and three or four assistants were busily engaged in administering their serums. There were about 30 patients present waiting their turn for the injection. Two clerks were present making notes on cards, each patient having a card from the laboratory, where the date and amount of each injection was kept and notes made on the progress, etc., of the case. All the large hospitals have two or three men at work on this same theory, and a great deal of work is being done at present along this line. In inquiring of the different men connected with the hospital as to what they thought of the opsonic index, the opinions were divided. Some of the men were quite enthusiastic, while others were skeptical and could not see that it as yet had substantiated anything. All seemed to be agreed on the point that it had not yet been sufficiently worked out, that it would take more work and more time to work out this theory and decide as to its virtue.

In visiting the operating theatres one notices that the facial masks, caps, and in the majority of cases rubber gloves have been discarded. I visited 10 operating rooms, and I have not seen a facial mask worn in any one of them. This includes operator, assistant and nurse. In two they used skull caps; this was in Charing Cross Hospital and in Mr. Moynihan's operating room.

A few of them used rubber gloves, and in several instances the assistant used rubber gloves, while the operator did not. In Mr. Freyer's operating theatre they used neither mask, caps, nor gloves, and in the majority of the operating rooms they use the old marine sponge instead of gauze sponges. When you realize that you are in the home city of Lord Lister, the father and advocate of antiseptics, as he lives here in London, you are impressed with the manner in which that great principle is becoming modified. It really is not antiseptics but strict asepsis as it is practiced here.

Another point that is very noticeable to the visitor is the large wound that each operator makes. It does not appear to make any difference whether it is for a simple exploratory or an abdominal hysterectomy, the wounds are all about the same size, and a person comes to the conclusion that they have no small knives in England.

They do not appear to have any trouble with anesthetics; the anesthetists are appointed as members of the staff. Most of the hospitals have two; they have rooms in the institution and receive a salary. The internes are instructed in anesthetics by these anesthetists.

The surgeons here are very accessible; about all that is necessary to do is to inquire for the house surgeon, sign the hospital register, and he will direct you to any clinic you wish, after instructing you as to what is required of you before entering the theatre. The operators are always courteous and explain what is being done. Mr. Moynihan is very pleasant and makes you feel at home. Mr. Freyer is exceptionally genial, and invites you to ask him to explain anything you do not just understand. He talks freely after each operation (showing specimen, if any), and demonstrates each step of the operation. These men yet have their difficult cases and meet with trouble; so all operations here are not done just as you see them in their text books.

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## News

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At the Hackley Hospital in Muskegon, Dr. Jacob Oosting has been appointed as one of the heads of the medical department. Dr. H. L. Williams was a new appointee on the staff, and Dr. John Vanderlaan was again named as chief of staff.

Dr. Angus McLean, of Detroit, has been elected president of the State Board of Health, and Dr. M. C. Sinclair, of Grand Rapids, vice-president.

Dr. C. L. D. McLaughlin has been appointed health officer of Vermontville.

Dr. Carl J. Rollman, of Burr Oak, has been appointed county physician of St. Joseph County.

Dr. E. T. Morris has been named as health officer of Nashville.

The Detroit Medical Journal has purchased Dr. Leonard's Illustrated Medical Journal, which will be fused with the former under the former's name.

Dr. B. M. Davy has been named to succeed Dr. Nottingham as city physician in Lansing.

Dr. M. A. Stuart, of Detroit, was recently appointed to the medical service of the United States navy.

Dr. Robert B. Armstrong has been elected mayor of Charlevoix.

Dr. O. C. McDonnell has been appointed health officer of Lowell.

On April 1 the State Sanatorium for Tuberculosis was ready to receive patients to the number of 100.

Dr. J. N. Bogan, formerly of Mackinac Island, has located at Green Bay, Wis.

Dr. G. L. Chamberlain has moved from Newberry to Lapeer.

Dr. A. K. Johnson, who formerly practiced at Sault Ste. Marie, has removed to Thorice.

Dr. J. F. Doudna has moved from Lake City to Marion.

Dr. Nelson Abbott, formerly of Mooreston, is now in Lake City.

Dr. N. D. Kean has moved from Ishpeming to Coleman.

Dr. E. A. Martindale has located in Hillsdale, having removed from Jackson.

Dr. M. S. Gregory, recently located in Mt. Pleasant, has removed to Traverse City.

Dr. F. A. Rutherford has returned to his home in Grand Rapids, after spending the past four months in Southern California.

Dr. Anna Odell, formerly of Dubuque, Iowa, has located in Detroit.

Dr. W. H. Enders, of Eaton Rapids, formerly secretary of the Eaton County Medical Society, is in Europe.

## Marriages

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Dr. J. P. Reed and Mrs. Rosie Anteau, of Rockwood, were married in Newport, April 17.

Dr. Frank Deitch and Miss Anna White, both of Benton Harbor, were married on April 9.

Dr. J. Frank Maguire and Mrs. Ella M. Churchill, both of Alpena, were married on April 1.

William C. Lawrence, M. D., and Miss Florence Lamke, both of Detroit, were married on April 18.

Samuel Stevens, M. D., of Kalamazoo, and Miss Ruby Pearl Berger, of White Pigeon, were married April 16.

Abel J. Baker, M. D., of Grand Rapids, and Miss Jeannette M. Baer, of Portage, were married April 17.

John H. Seaman, M. D., and Mrs. William P. Sprague, of New Haven, were married April 2.

Charles A. D. Clarke, M. D., of Harbor Springs, and Miss Matilde Beit, of Sherman, were married at Cadillac, April 27.

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## Deaths

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Herbert Smith Olney, M. D., formerly a practitioner of Detroit, associated with Dr. Max Ballin, died from tuberculosis on April 15, in Fresno, Cal., aged 30. Dr. Olney was a graduate of the University of Michigan, Department of Medicine and Surgery, 1901.

William Wilson, M. D., of Coldwater, died in Harper Hospital, Detroit, from abscess of the lung, April 14, aged 84.

Francis Edmonds Corbin, M. D., formerly a practitioner in northern Michigan, died in Los Angeles, Cal., from uremia, April 15, aged 59.

John Traston Main, M. D., of Jackson, died at his home May 1, after a long illness, aged 75.

Carl L. Rominger, M. D., died at his home in Ann Arbor from senile debility, April 22, aged 86 years.

J. W. Ferguson, M. D., of Haslett, died in Toledo, May 6, aged 58.

Samuel G. Milner, M. D., of Detroit, died in Grace Hospital, after a surgical operation, May 2, aged 61.



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Glandular Fever.**—SUBLINSKI adds his contribution to the discussion regarding the existence of Pfeiffer's "Drusenfieber" as an independent disease. Pfeiffer, in 1889, described under this name an affection, occurring usually in children from 5 to 8 years old, which commonly begins with high fever, joint pains, restlessness, vomiting, and anorexia. There is difficulty in swallowing and pain in throat and neck on moving the head. Examination shows coated tongue, little or no redness of the pharynx, and distinct swelling and tenderness of the cervical lymph glands, especially those on the posterior edge of the sterno-mastoid. The swelling of these glands is considered of special importance, as swelling of those in front of the sterno-mastoid is common to many other conditions. The glands are hard, and the swelling not diffuse. Fever and difficulty of swallowing usually disappear on the second day, while the swelling continues for several days. More severe cases, with fever for several days, cough, swelling of liver and spleen, and abdominal pain, were said to occur also, the cough and abdominal pain being ascribed by Pfeiffer to swelling of the retro-esophageal and mesenteric glands. According to Pfeiffer suppuration never occurs. He describes also a subacute form, characterized especially by swelling of the abdominal glands, with obstinate diarrhea.

Many have subscribed to Pfeiffer's view of the acute glandular fever as an independent infectious disease, while few have confirmed his observations regarding the subacute type. The frequent occurrence of hemorrhagic nephritis as a complication is considered strong evidence of the specific infectious nature of the disease. Most other observers disagree with Pfeiffer regarding the absence of suppuration, which seems not to have been uncommon in their cases. SUBLINSKI analyzes 21 cases which have come under his own observation. (Many of them seem to be improperly classed under glandular fever.) In most of them he found evidence of the "lymphatic constitution." A number occurred during epidemics of influenza; others after measles and scarlet fever. Several times there was more than one case in the family. Suppuration did not occur. There was hemorrhagic nephritis in three cases. SUBLINSKI believes that all the conditions are explained by the presence of an acute infection of the nose and nasopharynx, or of the pharyn-

geal tonsil, in which infection the rest of the pharynx is not involved, and says that he has found in these cases simple, follicular, and membranous inflammation of this tissue. He discusses the relations of the pharyngeal and faucial tonsils to the glands of the neck, and shows that it is as natural for the posterior chain to be involved in inflammation of the former as for the anterior to be affected in ordinary anginas. As to the infective agent, he does not believe it to be specific, but different in individual cases—most commonly, probably, the streptococcus. The streptococcus he believes to be almost always involved, even when the primary infection is due to some other organism. (*Zeitschr. für klin. Med.*, Vol. 62, p. 170.)

**Intermittent Fever in Visceral Syphilis.**—MANNABERG thinks that the occurrence of fever of the malarial or septic type in syphilis of the viscera, especially the liver, is not generally enough appreciated. He reviews the literature of the subject briefly, pointing out that he himself, in 1896, was the first to report fully on a case of this kind. In the present paper he reports six other cases; of the seven, five were cases of liver syphilis; in one the only local symptoms manifest were in the lungs; while in the remaining one there were no local symptoms whatever, and the diagnosis rested entirely on history and the cure by iodides and mercury. In one case there was no syphilitic history whatever; in three there was a history of tabs in the parents; and in three a more or less definite history of former syphilitic symptoms in the patient. In all the febrile manifestations extended over periods of months. In some it had the typical character and regularity of quotidian or tertian malaria, while in others it was more of the septic type, with less regularity of intermission and paroxysm. Differential diagnosis was necessary in the various cases between syphilis and malaria, sepsis, liver abscess, malignant neoplasm, pulmonary tuberculosis, etc., and in several the definite decision depended entirely on the rapid subsidence of symptoms under iodides, sublimate injections or inunctions. Study of the detailed case reports shows the importance of having this condition in mind in dealing with obscure cases of intermittent fever. (*Zeitschr. für klin. Med.*, Vol. 62, p. 256.)

## PEDIATRICS

Conducted by

R. S. ROWLAND, M. D.

**Diabetes in Children.**—In 1899 BOGORAS contributed a monumental study on the subject of diabetes in children, collecting all that the literature of the subject could show. His deductions were drawn from a study of 560 cases. In a recent monographic dissertation (Berlin, 1906) BRANDES has assembled and digested all the subsequent reported cases, to which he has added a critical study of eleven cases from Heubner's clinic. One may gather from this work that, etiologically as well as clinically, diabetes in children shows an extremely variable picture. It almost always has a fatal ending. Sex has little influence. Only 14 cases are here reported as known to exist in the first years of life, and only one of possible congenital diabetes.

Heredity is considered as one of the important etiological factors, while infectious diseases, chilling, teething, and shock are noted. Typical cases exist with no symptoms. The end stage with coma is quite characteristic.

Therapeutic attempts have been disheartening. Organotherapy has been unavailing, dietetics unsatisfactory, the Carlsbad regime unprofitable. In some cases a buttermilk diet or von Noorden's oatmeal gruel has been helpful, but it is too early yet to say as to the ultimate results. Alkaline therapy at the time of acid intoxication is of value. The prognosis is admittedly bad, 84 per cent of deaths in BRANDES' new figures, but as the age of onset increases the prognosis is better. (Editorial, *Pediatrics*, May, '07.)

**Epilepsy in Childhood; Its Relation to Other Diseases.**—KEELING, from analysis of 150 cases and review of the literature, draws the following conclusions:

1. The pathology of epilepsy appears to resemble in some respects that of cerebral diplegia, chorea, paralysis agitans, neurasthenia, myoclonus, and migraine.

2. Etiologically, rickets is an important factor in the causation of epilepsy.

3. A variety of epilepsy, which may be termed toxic epilepsy, is chiefly gastro-intestinal in origin.

4. Reflex epilepsy is apparently rare; peripheral irritation probably plays a very small part in the production of fits.

5. The effect of measles on epilepsy is uncertain.

6. Chorea is very rarely found associated with epilepsy.

7. Infantile paralyses, especially the congenital forms, are closely related to epilepsy.

8. An injury or a fright is frequently the exciting cause of a fit. Instrumental delivery may be followed by paresis, with subsequent epilepsy.

9. Enuresis is an occasional sequela of epilepsy.

10. The disease known as night terror is probably a mild form of epilepsy.

11. The three affections most frequently found in the family history of epileptics are epilepsy, migraine, and alcoholism.

12. Migraine appears to be very closely allied to epilepsy, both in family history and in symptoms.

13. The differential diagnosis between Mènière's disease and epilepsy is occasionally difficult. (*The British Journal of Children's Diseases*, April, '07, p. 133.)

### On the Use of Living Lactic Acid Bacilli to Combat Intestinal Fermentation in Infancy.

DUNN's findings are of considerable practical interest. Following out work suggested by Tissier (*Annales de l'Institut Pasteur*, XIX, No. 5), after failure with usual methods, he gave living lactic acid bacilli in buttermilk.

He says these results have proved exceedingly striking. The unpasteurized buttermilk has been tried on 35 selected cases. Of these there was evidence of a favorable result, as shown by a change in the character of the dejecta and by a gain in weight, in 23. In three there was an immediate cessation of diarrhea and favorable change in the character of the dejecta, without gain in weight. In nine cases the lactic acid bacilli produced no effect.

All the successful cases were of the fermental type of diarrhea. Irritative and infectious cases did not respond to this method of treatment, while only two of the fermental cases could be classed among the failures. DUNN states that his results are not conclusive, but he believes that the use of living lactic acid bacilli is a harmless method of treatment, and that it may do good in cases of intestinal fermentation.

Its value lies chiefly in the fact that it is an additional resource, applicable in a very difficult class of cases. Although we have accomplished great things in the treatment of these conditions by proper feeding methods, and although the resources provided by the wide limits of percentage feeding are very numerous, nevertheless a certain number of cases remain over which defy all our resources and resist our best therapeutic endeavors. As long as we have such resistant cases we have need of every possible resource, and any new resource can never be superfluous. In conclusion, DUNN says that he believes that the use of living lactic acid bacilli to combat fermentation is a resource which has a logical scientific foundation, and which in time may take a high place in the scale of efficiency. (*Archives of Pediatrics*, April, '07, p. 241.)

## GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

**Syphilis and the Public.**—BAILEY expounds a few truths, to the significance of which most of us are only too ready to give little heed. Syphilis is a tremendously prevalent and destructive disease; failure to diminish its ravages lies in our unwillingness to give sufficient publicity to the extent of its destroying powers in the false modesty which keeps us from acquainting the young with its terrors, and in the mistaken idea that purification of the male is less necessary than of the female.

He decries the fact that the state never hesitates to protect the stock raiser from animal disease, or the agriculturist from grain and fruit pests, but that the cowardice of man permits him to allow a blight to the human race that ruins a startling per cent of nature's choicest children. He decries the fact that the subject is shunned in the home and in the church. He pities the honored father and respected mother who sit in blissfully ignorant assurance that *their* home and *their* circle are safe from the need of knowledge concerning an agitation for protection against such a loathsome evil. It is upon just such homes that houses of prostitution not infrequently draw for an inmate and rather frequently for a patron.

Six suggestions follow:

First. Let the disease be declared by every state a communicable and contagious disease, and let every case be reported as such under penalty of a heavy fine for neglect on the part of the physician so to do.

Second. Let every house of prostitution be under the strictest surveillance and every diseased woman removed therefrom and placed in a state hospital provided for such purpose, and there detained until she can be given a certificate of health, and during time of detention every effort made to turn her from such a life, and

honest employment at living wages furnished her on leaving, even if it be in state work.

Third. Let every man who visits a house of prostitution be obliged to show to an officer of the city or county a certificate of health to have on it his own signature for purposes of identification.

Fourth. Let the statute prevail in every state that no license shall be issued for marriage, and no marriage shall be legalized without such license, until the applicants for marriage have presented a certificate of health from a legally qualified practitioner, the same being countersigned by the president or secretary of the State Board of Health, he having first examined the records of reported luetic disease in the office of the State Board of Health and verified the physician's signature as that of one legally qualified to practice medicine.

Fifth. The fees for all certificates under the above provisions to be fixed by statute and evidence that any one has charged less or more for said certificates than the amount fixed by law to be a conviction of favoritism or bribery and punished by fine as a misdemeanor.

Sixth. That a brief and forceful exposition of the history, character, dangers from and mode of transmission of luetic diseases be prepared and adopted by the State Board of Health of each state and a copy of the same placed in the hands of every boy and girl in the state at the age of fifteen years. That at the same time a copy of the same be placed in the hands of the parent or guardian of each child with a request for help and admonition to be extended to the child in the reading and study of the article furnished by provision of the statute. (*American Journal of Dermatology and Genito-Urinary Diseases*, May '07.)



## ORTHOPEDIC SURGERY.

Conducted by

WILLIAM E. BLODGETT, M. D.

**Plaster of Paris: The Effects of Various Substances Upon Its Rate of Setting and the Subsequent Strength and Durability of the Cast.**—WALTER G. STERN closes his article with the following conclusions:

1st. The orthopedic surgeon should select for his use a pure, well made and well kept, unadulterated brand of plaster of paris. Such a plaster will set in about 7 minutes, which is fast enough for all ordinary work, and yields a cast of the highest strength and durability.

2d. The use of starch crinoline bandages as the support in the application of the plaster does not interfere materially with either its rate of setting or its tensile strength. The various forms of wire gauze bandages yield a cast of increased tensile strength and therefore a lighter cast.

3d. Portland cement, when used with plaster of paris in amounts varying from 10 to 20 per cent, yields a cast of superior hardness, strength and durability. It is especially adapted for use about the foot, ankle, and about the thigh in the Lorenz operation.

4th. Moisture disintegrates, softens and dissolves plaster casts.

5th. The waterproofing of plaster casts by mixing the plaster bandages in a solution of sodium silicate is impractical. The finished cast should be thoroughly coated with sodium silicate solution after hardening. The hardening of plaster models, shells, corsets, etc., can readily be accomplished by dipping or painting them with a hot alum solution.

6th. The addition or use of any form of accelerator yields a soft and friable set, and the cast is of insufficient tensile strength and resistance to abrasion to possess the lasting qualities demanded by the majority of orthopedic procedures. The worst accelerators in this regard are common alum and potassium sulphate. The practice of using poor plaster and then "doctoring it up" with an accelerator to make it harden rapidly should be abandoned.

7th. The use of "quick setting dental impres-

sion" plaster is also to be condemned for the same reasons. They almost invariably contain considerable amounts of potassium sulphate which renders them brittle and friable. The regular slow-setting plasters obtainable on demand almost everywhere in our country are pure and unadulterated, and when kept in clean, dry containers present the ideal material for orthopedic casts; they can be wound into bandages with starch, crinoline or wire gauze, and where especially heavy wear is expected can be advantageously mixed with 10 to 20 per cent of Portland cement. (*Am. Jour. Orthopedic Surg.*, April, 1907, IV, 4, p. 352.)

**The Treatment of Faulty Weight-Bearing in "Weak" and "Flat" Feet.**—ROBERT B. OSGOOD closes with the following conclusions:

The exercise treatment of weak feet is admitted by all to be rational and desirable. That it is much neglected in much private work, and practically unemployed in most hospital clinics, we feel sure. In private work, by regular office appointments, we can have this exercise treatment supervised by ourselves or our helpers, and should make the patient feel that it is as important as our exercise work in scoliosis.

Careful attention should be paid to the gait. The admonition which we probably all received from our own parents, to turn our toes out in walking, should be combatted, and, in its place, lessons in a straight, to forward, springy gait should be given.

We believe that in the future more orthopedic apparatus will be corrective and less simply retentive. Proper shoes are the most important form of apparatus. Through co-operation of manufacturers and orthopedic men, several lasts which are made on good, non-constricting lines, and are fairly flexible, are to be had ready made. For the active hours of the day we should insist that shoes which favor slight adduction of the fore foot, and give wide space for toe action, should be worn. (*Am. Jour. Orthopedic Surg.*, Oct., 1906, IV, 2, p. 137.)

# The Journal of the Michigan State Medical Society

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## Original Articles

### METHODS OF DIAGNOSIS\*

JAMES B. HERRICK, M. D.,

Professor of Medicine, Rush Medical College, Chicago.

I have thought the subject of methods of diagnosis was an appropriate one to bring before you on this occasion because it was one that would interest a body of medical men embracing general practitioners of city and country, surgeons, internists and specialists; in the second place because there are certain respects in which, as it seems to me, there are prevalent misconceptions concerning the proper methods of diagnosis, and lastly because the topic is a timely one and is just now exciting a good deal of interest as witness many magazine articles in different countries as well as discussions in some of our leading societies. So even at the risk of repeating what may already be called trite, I venture to speak on this topic.

It would be interesting and instructive did time permit, to review the historic development of various methods of diagnosis. We should find in Hippocrates a close observer of his patients and in witness might recall the facies designated by his name; Galen was also a close observer and in addition paid some attention to morbid anatomy and primitive experiment. We should find

the middle ages largely concerned with superstition and respect for authority, viz.: Hippocrates and Galen rather than with a study of the patient. The English Hippocrates, Sydenham, would be found reviving close clinical observation. And then we should find the influence of anatomy and morbid anatomy, with Morgagni as a leader, throwing more and more light on the phenomena of disease. We should have impressed upon us the force of the impetus given by the French school in the early part of the last century as we read how Corvisart rescued from oblivion Auenbrugger and percussion and how Lænnec created the art of auscultation, but more important still, interpreted his auscultatory findings in the light of the autopsy. We should read the long roll of his successors in skilled physical diagnosis with such names as Skoda, Traube, Oppolzer, Flint, etc. And we should see Richard Bright calling attention to a more careful study of the urine, again with control of the interpretation of clinical findings by those of the autopsy. Virchow would appear with his powerful influence in directing attention to the study of the morbid anatomical changes in disease and his new concep-

\*An address delivered at the 42nd annual meeting of the Michigan State Medical Society, Saginaw, May 15 and 16, 1907.

tions of the cell, all of which influenced much the methods of diagnosis and brought the microscope more prominently forward as an accessory. And clinical entities and diagnostic signs would spring up here and there, described by the pen of an Addison, a Basedow, a Trousseau, an Argyll-Robertson or a Weir Mitchell. And then there would be seen bursting in on the medical world the science of bacteriology giving us new conceptions of the causes of disease, new interpretations of their phenomena and adequate explanations for many hitherto mysterious complications. Following directly in its wake comes the diagnosis of disease by detection of causal organisms, the diagnosis by surgical operation made possible because of the application of the principles of asepsis, and the diagnosis by specific serum reactions. Hardly had the medical world gotten its second sight after the blinding glare of bacteriology before it was again dazzled by the X-ray with its possibilities in the way of diagnosis. Instruments and methods of precision have multiplied at such an astonishing rate, chemistry in all its branches, general, physiologic and physical, has announced so many aids to diagnosis, and the function of different organs has been tested in so many and such varied ways that the general practitioner who, thirty years ago, was well informed fairly gasps for breath as he tries to read his up-to-date medical journals or to follow a discussion in a society and he retires at night disheartened, bewildered and perchance has a nightmare in which megaloblasts are sporting with amino acids and complements while a trypanosome with a tremendously long tail at the end of which is a plasma cell, is working a cryoscopic apparatus from which are issuing Ds and ds in inextricable confusion, while all the time an X-ray machine is spitting fire at him and a surgeon with a knife stands ready to do an exploratory operation, calling out

"What's his opsonic index?" "let me know first his opsonic index." No wonder he looks worn and tired and gives way to despair as he tries to grasp it all.

Now no one human being can be expected to be an expert in the use of all the various means of diagnosis. He who tries it soon loses his bearings and is hopelessly lost. Without attempting a philosophic disquisition on the broad topic of methods of diagnosis and without assuming that I have the Ariadne thread to guide all wanderers through this perplexing maze, I wish to bring to your attention a few practical thoughts that may be of help to one in one way and another in another, and may possibly help some wanderer from going astray.

I am led to do this in a measure because, as I have said, I feel that there is in a sense a misconception on the part of the practitioner, of the place played by the laboratory and by so-called instruments and methods of precision in diagnosis, and a certain estrangement of laboratory and bedside that is very unfortunate.

Practitioners untrained in laboratory work are apt to look upon the laboratory as infallible, and as the only scientific branch of medicine because so largely concerned with the exacter branches, e. g., chemistry, physics, anatomy, physiology. But they overlook the fact that much of the laboratory is still empiric. Think for a minute of certain laboratory diagnoses. Take the blood in pernicious anemia or better still in acute lymphatic leukemia. What is it that we see? What is the meaning of those large mononuclear cells in most of the acute cases but of the smaller forms in another, and of their promiscuous mixture in a third case? Why are there few eosinophiles? What is the cause, the significance of all this? We are diagnosing by little more than a mere collation of observations. In just the same way was it learned that there is a differ-



ence between the rash of typhoid and typhus though it took the genius of a Louis, a Gerhard and others to make this fact generally known. Is it not in both instances largely empirical? Pathology tells us a certain section is from a carcinoma, another from a sarcoma. But what are these in their inherent natures? We know much, the help to diagnosis by a microscopic study in the case of tumors is enormous and invaluable, but is it not still largely empirical just as our study of the location, manner of spread, consistency, etc., of the tumor on the body is empirical? And so, even with the Widal reaction, or the diazo reaction; there is much of the empirical or purely experimental clinging to these laboratory methods. Even the laboratory is still busy collecting facts and instituting comparisons. Generalizations into true laws are still rare.

The practitioner too often overlooks this and places far too great dependence on the result of the laboratory finding because he regards it as more accurate and scientific than it really can be or claims to be. His disappointment is keen, therefore, when the laboratory man honestly declares his inability to make a positive diagnosis, or his resentment is great if the laboratory man on too slim a basis rashly ventures an incorrect diagnosis. Thus there is in some doctors a certain overestimation of the value of the laboratory in diagnosis and in others an unwarranted distrust of the same.

Certain limitations of the laboratory are inherent in the method aside from the personal equation due to errors in judgment or to haste and carelessness on the part of the operator, and should be frankly acknowledged by the laboratory worker and clearly understood by the physician. It is not necessarily a fault of the laboratory if the sputum examination shows no tubercle bacilli even though the patient has pulmonary tuberculosis. The particular specimen may not contain them. A suspected typhoid

perforation is reported from the laboratory as accompanied by only five thousand leucocytes in the blood. It is not the fault of the laboratory that the physician on this finding incorrectly excludes perforation. If the laboratory says the bacteriologic study of the blood shows no micro-organisms and yet the present and subsequent history shows ulcerative endocarditis, pyemia or pneumonia as the case may be, it is not the fault of the laboratory. The trouble is that the method of examination is one that is not infallible; it is largely empirical. And the mistake comes because the practitioner and perhaps the laboratory man do not recognize these limitations or do not differentiate as they should between the interpretation of so-called positive and negative findings. The findings of tubercle bacilli in sputum is a very different thing from failing to find.

The physician should have training enough in the laboratory to understand the difficulties under which work is there done, the possibility of error, the impossibility of always reaching results that are positive. The laboratory worker should have practical training as a physician, at least a training as a hospital interne so as to realize the difficulties under which the doctor is working, and the important bearing the laboratory report will have on diagnosis. The laboratory worker, the practitioner and the patient should be in close touch. The laboratory man should be a consultant, willing to take his share of the responsibility, but no more than his share of such responsibility and entitled also to his reasonable fee. The final interpretation of the laboratory finding is with the physician. This finding represents one of the symptoms or signs if you please, in the total symptom-complex presented by the disease; it may be a symptom of slight importance, it may be of overwhelming importance outweighing that offered by anamnesis and examination

of the body. But the final summing up should be done by the physician, aided as far as needed by the laboratory worker.

The remedy for this lies, as you see, in better training in our colleges in laboratory work and the continuance of this work by the doctor when in private practice, and it is a pleasure to see that more and more attention is being paid to this. Certain laboratory reactions and technique should be as much the common property of every practitioner as ability to use the stethoscope or the obstetrical forceps. Ordinary chemical and microscopic examinations of urine, stomach contents, feces; the morphologic study of fresh and stained blood and of exudates; the recognition of commoner bacteria; these are, or should be, no longer the exclusive privileges or duties of the laboratory man. In exceptional cases requiring special skill in interpreting findings or unusual stains or apparatus the laboratory expert or laboratory specialist must be consulted just as the ophthalmologist is, when the practitioner is puzzled about the appearance of a retina. So, thorough undergraduate laboratory experience is necessary in order to prevent some of these misconceptions on the part of the practitioner. Then when in practice there should be not only further study, but as he grows busier and busier he must associate with him some young man fresh from the laboratory, giving him practical experience at the bedside, but letting the young man keep *him* fresh in the advances that have been made since he himself graduated. Several doctors may combine to secure the services of such a young man of exceptional laboratory training, or county or district laboratories might be established; but as I have insisted, the closer the laboratory to the patient the better, and so where possible each doctor should have his own private laboratory, each attending man

in the hospital staff have his; at least each department in a hospital and the clinics of each department of a college should have its own laboratory.

There is another tendency that is sometimes seen that is harmful. We doctors are very gullible. We are poor business men. A promoter comes along, shakes a gilded bauble in front of us and like little children, caught by the glitter and tinkling of the tinsel stuff we grab at it thinking it pure gold, and our hard-earned money is sunk in a useless patent or in a mining scheme. So as regards new drugs; we believe, or at least practice as though we believed, that what the commercially interested drug house says—provided it is in print and especially if it has the stamp “made in Germany”—is true, and we prescribe a new drug as a cure for this or that disease never stopping to think whether what we are doing has any basis of reason or common sense, or whether it may not be harmful. And we are inclined to do much the same thing in the way of new methods, instruments and technique pertaining to diagnosis. If it have the laboratory or hospital stamp upon it, particularly one of foreign mark, we are apt to accept it as reliable; it is the latest thing out. Comparatively rarely do we find the commercial bane in such new devices though occasionally we see it as in new instruments, or new chemical reagents. But usually it is the desire of some laboratory or clinical man to get a little reputation and to get into print early that causes him to make a premature announcement that leads scores or hundreds of innocent practitioners who do not carefully weigh his statements, or test the method in a critical manner, in their laboratories and at the bedside, to accept his statements as true and then when experience shows them to be false, to grow distrustful and skeptical against the laboratory and the hospital man in general.



I hope I shall not be understood as setting a low value on the laboratory and instruments of precision as aids in diagnosis. Everyone must admit that properly used they are practically indispensable. But I wish right here to make a plea for some of the older methods that ought not, as it seems to me, to be relegated to such an insignificant and minor position as is too often the tendency.

A comprehensive diagnosis implies the use of the most important instrument of all, viz., the brain. It involves a process of reasoning. From long experience the quick-witted physician may reach his conclusion by leaps and bounds and appear to make an intuitive diagnosis; he "sees at a glance" what is the trouble. But even this involves a mental process, rapid though it may be, and it means that there have been many previous similar processes of reasoning in other similar cases. A careful consideration of the past history—anamnesis, the present condition—status praesens, with a complete and detailed physical examination, together with a summing up and linking together of them—an inductive process—all this is implied in a diagnosis. And then a diagnosis to quote the words of one of your number is more than a mere labeling of the disease, it is the detection of the disease in this particular individual, its location, extent, intensity, severity, etc. It involves a study of the individual make-up, the condition of other organs than the one chiefly affected, the patient's probable ability to withstand as shown by family tendency and behavior in other illnesses. Ability to make a diagnosis of this sort implies training in the eliciting of the history, skill in observation of phenomena and a trained, erudite touch, ear and eye and even nose. The finding of tubercle bacilli in the sputum may settle the diagnosis of pulmonary tuberculosis, but only the history of the case, the study

of the physical signs, the effect upon the blood, pulse, weight and general health, etc., enable the physician to make a *real* diagnosis, to have real knowledge of the disease, to make a well-founded prognosis and to advise a rational therapy.

Have you not noticed the difference in skill of two physicians in the matter of getting a history from patients? One, perhaps with his mind made up as to the nature of the ailment, asks leading questions, checks the patient who volunteers what seems to be needless information and gets either a hodge-podge or a history with essential details omitted. The other in an orderly, quiet way while keeping the patient from wandering into history clearly irrelevant, in a short space of time gets a succinct account of the salient features, with minutest details where they could possibly throw any light on the present illness. He is a lawyer examining the witness who may be a willing or unwilling one anxious to tell too much, or eager to conceal unpleasant or disgraceful facts. But unlike the lawyer he is not an advocate trying to bring out only one side of the case. A certain native tact, an ability to get along with people and to understand human nature here counts for much. The young interne in the hospital one day stood aghast as the patient related to his attending man stories that had an important bearing on the present disease. A hint brought out a history of alcoholism, another an admission of an initial venereal lesion years ago, a brief question the fact of an old pleurisy, etc. Unable to stand it longer the abashed and angered interne turned to the patient and said: "I don't see why you patients haven't more sense. Why didn't you tell me these things when I was writing your history last night? You've told the doctor more in five minutes than you told me in thirty." "Well, sir," said the patient, calmly, "because you never asked me, and besides you



never gave me a chance."

And you have seen the patient whose case has been carefully investigated by the recent graduate fresh from the laboratory; a bacteriologic examination has been made; the blood has been studied; so also the stomach contents, the fluid from the chest, the urine; the blood pressure has been estimated and sphygmographic tracings have been taken; the eye-grounds have been looked at, yet the illness is mysterious. Then have you not seen the older man come along, review the carefully written history and give it a deserved compliment, and then deliberately and as an expert palpate the abdomen and demonstrate a mass, describing its location, size, contour, degree of hardness, mobility and its other characteristics. The mystery is solved. All the other findings fit in perfectly with this one and group themselves about it. Laboratory methods and instruments of precision have contributed to the diagnosis, but the central unifying fact was discovered by the old-fashioned *tactus cruditus*. Just as in chemistry a solution saturated, or even super-saturated, may refuse to give up its crystals until inoculated as the chemists say, by a small crystal of the substance, the mass of facts known concerning our patient refused to show any orderly or comprehensive arrangement until touched by the sensitive hand of the skilled examiner.

The notion that laboratory methods are to render useless and obsolete the old and tried inspection, palpation, percussion and auscultation is harmful in the extreme. Yet this prevails, and even in our colleges we see this tendency to put in the background physical examination. von Noorden complains that in Germany many of their graduates are now-a-days poorly grounded in the art of auscultation and percussion, the fundamentals of diagnosis and urges that this art be not neglected. Because

tubercle bacilli may be found in the sputum in pulmonary tuberculosis, we should not rely entirely upon that as the diagnostic criterion, and so be careless in the detection of an apical infiltration, but should be spurred on to greater care in our physical examinations, as now the accuracy is controlled by the sputum examination, and we shall thus learn to be able to interpret more definitely what we feel and hear than ever before. Let the X-ray confirm our suspicion of a small aneurism. The next time we shall be bolder in declaring the significance of certain otherwise obscure physical findings. The laboratory method or instrument of precision thus becomes as it should be, an adjunct of bedside history-taking and physical examination, and does not and should not displace them or lower their dignity.

And let me add another thought. I believe there is in many quarters a tendency to put the study of morbid anatomy too much in the background. Bacteria, lymphocytes, Kjeldahls, electric conductivity of body fluids, free hydrochloric acid, antibodies, plasma cells, opsonins are worthy of most careful study—but after all, the basis of the greater part of our diagnosis is the recognition of deviation from the normal in the location, size, consistency and physical properties, of various organs, together with alteration in function that may attend such pathologic condition. Normal and pathologic anatomy, together with normal and pathologic physiology are the indispensable essentials for a proper study of the body in these respects and must in the nature of things remain so. The ability to palpate a large spleen and to identify it as such enlarged organ, will never, I believe, be relegated to a position of unimportance by the discovery of any number of bacteria, or by any blood finding or chemical reaction, though even now some of these methods of examination

assist materially in the understanding of the nature of the splenic enlargement, and it is to be hoped many more aids will be discovered.

Neusser, one of the acutest diagnosticians of Europe, a man who fully recognizes the value of the laboratory as an adjunct to clinical medicine, a pupil of Hoppe Seyler, the chemist, says: "Yet even today pathologic anatomy still remains the mistress of the art of diagnosis; it is she who determines our decisions at the bedside."\*

There is another reason why we must cultivate the art of critical observation and physical examination by the unaided five senses. Over and over again we are called upon to make a quick, on-the-spot decision as to the nature of an illness and its appropriate treatment. The case is one of emergency, time for the laboratory or instrumental diagnosis is not allowed by the remoteness of the laboratory—or the tedious character of the method of examination precludes its employment. The doctor must rely on himself. His training in close study of the phenomena of disease and in physical signs is here his only reliance, and his success or failure depends largely on this previous bedside training. To stop to draw the urine and test for morphine in a case of supposed opium poisoning involves a dangerous delay; the pupils and respiration and other signs must be the guide. The critical study of the twenty-four urine, including cryoscopy perhaps, is advisable in a case of uremic coma, but the skilled man is reasonably sure of his diagnosis from a few well-put questions to the friends, the study of the heart and vessels, the odor of the breath with perhaps a glance at the retina, for the ophthalmoscope ought really to be a pocket instrument as well as the stethoscope and hypodermic syringe, and he institutes prompt treat-

ment. A hemorrhage from ruptured tubal pregnancy, obstetrical emergencies, intestinal obstructions, some cases of diphtheria, angina pectoris, these and many other conditions need quick diagnosis. The time is not allowed for detailed study of the blood, the blood pressure, the urine, or the bacteriologic study of exudates.

This should not be understood as advocating a "snap diagnosis" so-called. We ought always to be thorough. As a routine there should be a study of the body in its entirety in every new case. It is an old saying but a very true one, that more mistakes are made through carelessness than through ignorance. The habit of careful eliciting of the history, thorough examination of all parts of the body, complete laboratory and instrumental investigation will enable us to eliminate a large proportion of our mistakes and to make comprehensive diagnoses. An illustration or two may show what I mean by the latter expression. A patient comes in with history of cough, emaciation and fever and an examination shows an apical consolidation and tubercle bacilli in the sputum. So far so good. But only a routine questioning as to the past history and a study of the urine may show that the pulmonary tuberculosis is a complicating event in a patient with saccharine diabetes. Or we easily make a diagnosis of pneumonia or typhoid, but make a grievous error in prognosis because not recognizing a coexisting nephritis, or a myocarditis. Or we recognize a tabes, but overlook an accompanying aortic leak or thoracic aneurism.

I might dwell upon the diagnosis by operation. It has a legitimate place. Medical men are perhaps prone to resort to it too infrequently and particularly in the way of such simple operative procedures as exploratory punctures of the thoracic cavity, lumbar puncture, the removal of glands, or of pieces of tis-

\*Edmund Neusser *Ueber Diagnostik und Therapie in der innere Medicin.* Wien, 1893.



sue as of the uterus, for microscopic examination, etc., while surgeons are perhaps too easily inclined, from their lack of dread of the operation, to resort to an exploratory or diagnostic operation before an exhaustive study of the case has been made by non-operative means.

But I have, I fear, already exceeded a reasonable time-limit and must close.

I have endeavored to call your attention, and I fear in a rather disjointed manner, to a few practical features concerning diagnosis. I have tried to recognize the indispensable aid to be derived from the laboratory, to show that the practitioner must have a practical knowledge of laboratory workings, or there is liable to be a greater estrangement between the laboratory and the clinician. I hope I have made clear my belief that the laboratory should be near the bedside, i. e., truly clinical and that its findings should be viewed as a cardinal symptom, the final decision, with this cardinal symptom given its true weight, being made by the physician, the laboratory worker being his consulted colleague. I have emphasized the fact that while all aid possible should be sought from any sensible, scientific, practical new method or instrument of precision, we should not give up the old, time-honored method of clinical observa-

tion and the physical examination by the unaided five senses, because these methods have in them elements of truth. And I have tried also to show that a diagnosis is not yet—we hope may never be—a process where all is mechanical and where no logical thinking is necessary, where we shall be as Weir Mitchell puts it “dementalized.” May I add in conclusion just one word more. You have perhaps had the experience—we all have—of having studied your case as you thought carefully. You have called in some one to aid. He confirms your findings but goes one step further than you, he secures the one fact that was lacking, or by rearranging your facts brings order out of chaos. You say he is a genius, he has a native knack in such matters. Now don’t believe it. Only once in a great, great while does the real genius appear. The secret of your colleague’s success is explained by that one little word that has been called by one of our most honored medical leaders William Osler, the master-word in medicine. It is the word “work.” It is after all the real secret of successful diagnosis. It is the man who plods in his laboratory, digs at his books, re-examines his patient and again digs, it is the man who works who wins.

#### Popular Education in Matters Medical.—

H. W. Wright deplores the ignorance which permits of dirt and disease, of unhealthy homes and factories, of badly prepared and improper foods. Such things exist because of ignorance and consequent indifference. Infectious diseases, diseases of the digestive and respiratory organs are permitted by his ignorance. No proper physiology is taught in the schools, and the parent knows not how to instruct the children. There should be

public education along the lines of hygiene and sanitary science, as to the cause of disease, the value of fresh air, bathing, and proper preparation of foods. Sexual hygiene should also be taught so as to prevent venereal diseases, sexual excesses, and perversions. This teaching should be for children and adults, in the public schools by physicians, and in public lectures also by competent physicians. There should be control by the boards of health and of education given by the legislature.—*Medical Record* May 25, 1907.



## CONCERNING THE USE OF BACTERIAL VACCINES IN SURGERY\*

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W. H. HUTCHINGS, M. D.,

Detroit.

Lecturer in Surgery, Dartmouth Medical School.

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In the time at my disposal it will be impossible and, I think unnecessary, to discuss the so-called "opsonic theory" of Wright, or consider the technic of opsonic estimations. These have been fully set forth by Wright and his pupils in many excellent articles. I shall therefore limit myself to the considerations of the use of vaccines in surgical conditions. For even if the theory of opsonins be wrong and the estimation of the opsonic content of a patient's blood only a rough guess at his resistance to disease, yet the use of bacterial vaccines should, and of necessity must, rest on a clinical basis. It is of the clinical applications and the results obtained therefrom that I wish to speak.

In the beginning I would beg you to remember that this method of treatment is only in its experimental stages and like many therapeutic measures of the past will have claims made for it which more extended and more careful observation will prove to be unfounded. It is only by thorough, careful work on a very large number of cases that we can hope to determine its true possibilities and limitations and we must always bear in mind that what appears to be proven today, may tomorrow be demonstrated to be entirely erroneous.

With the idea of determining the therapeutic value of bacterial vaccines, I began some months ago, the treatment of a series of cases, selected because of

their severity or because they had resisted other forms of treatment. In order that the test might be fair, I followed absolutely the methods and technic used by Wright. I isolated in pure culture all the germs present, prepared vaccines from them and controlled the administration of these by the opsonic index which was estimated every day or every other day. It is of course impossible to consider here each case in detail but I hope to publish them later. The questions which I will discuss are the result of my observations on these cases and a study of the literature.

When we come to consider the class of surgical conditions to which vaccine therapy may be applied, we will find, as would theoretically be expected, that it gives the best results in localized infections of more or less chronicity, such as: furunculosis, cystitis, gonorrhea, sinuses following operations and various forms of localized tuberculosis. It has been used successfully in some cases of more generalized infections, Wright having treated one case of ulcerative endocarditis in which the results were brilliant.

Let us consider for a moment what happens when a dose of a bacterial vaccine is given? Immediately following the injection, there is a lowering of the resistance, the negative phase, which persists for a greater or lesser length of time, depending on the size of the dose. Following this, there begins a rise which generally goes above the starting point,

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\*Read at the 42nd Annual Meeting of the Michigan State Medical Society, Saginaw, May 15 and 16, 1907.

the positive phase, and persists for some time, gradually sinking again. When the falling begins, it is time for another inoculation. No injection should be given during the negative phase, as it lowers the resistance still more.

To take up now some illustrative cases. The first case, a man 55 years old, in poor general condition, had a suppurating gland on the right side of the neck which had been discharging nine weeks. Bacteriological examination showed the presence of staphylococcus pyogenes aureus, streptococcus pyogenes and bacillus subtilis. The great preponderance of aureus led me to believe that this was the causative factor. Accordingly, I prepared and injected a vaccine from this. In a few days the discharge stopped and the wound closed. This remained a week, when he presented himself with an accumulation of pus in the same place. This was incised, another inoculation given, the discharge ceased and the wound closed again. No bacteriologic examination was made. In another week he presented himself with another abscess. Bacteriologic examination showed a pure culture of streptococcus. A vaccine prepared from this caused the wound to close promptly and the patient has remained well for nearly two months. I give this case because it illustrates several points which I think are of importance. In the first place, it shows the advantage of using vaccines for all pathogenic germs present. If I had given him at once the vaccines of both germs he would have been cured much quicker. Another point here illustrated is the value of making frequent bacteriologic examinations. Had I persisted in giving him only aureus vaccine, I would have secured no result and vaccine therapy would have had an unrelieved case to its credit. I had had similar experience in several other cases and I now make a bacteriologic examination every two weeks.

The course of this case points also to the specificity of opsonins. The aureus vaccine removed the aureus from the wound but not the streptococcus.

In using bacterial vaccines, we should never lose sight of the fact that it is only one therapeutic measure, and should use all others at our disposal. A case in point is one of tuberculous adenitis of the neck and tuberculous tenosynovitis of both wrists. I gave T. R. for two months with only slight improvement. I then began the use of Bier's hyperemia and the improvement was rapid. The reason is obvious. The T. R. raised the resistance of the blood to the tuberculosis and the hyperemia brought more of this improved blood to the affected areas. Anything which will temporarily increase the blood supply to these localized areas is of the greatest aid, such for example as the Finsen light, x-rays, hot baths, etc. I also find that the negative phase is shortened if the patient remains quiet for a day or two following inoculation.

Another question of greatest importance is that of dosage. In my earlier days, I gave much larger doses than I am at present employing. In pyogenic infections the first dose was commonly 400 M., followed by 600 M. and later by 800 M. The first inoculation produced a decided negative phase followed by a tremendous rise, the index sometimes going to three or four times normal. However, I found that after a few inoculations, the opsonin producing power of the blood was greatly diminished, increased doses producing only a slight rise in the index. I am now beginning with 50 M. and rarely go above 100 M. This produces no appreciable negative phase. I found also that the clinical condition was no more improved by the very high temporary rise in resistance than by the more moderate one following the smaller dose. The results are best when, instead of a high tem-

porary resistance, we are able to keep the index a little above normal for a long time. This is particularly true of tuberculosis where I am convinced we have been giving too large doses. I started my first cases on 1/1000 of a milligram of T. R. and continued with this dose. I got in some cases a prolonged negative phase and I am now starting with 1/4000 and rarely giving over 1/2000. Where this is done of course the dose must be given at more frequent intervals.

There is another class of cases in which I think vaccine therapy promises very much. I believe with the aid of a gonococcus vaccine, we will be able to make the course of an acute gonorrhea much more comfortable for the patient and prevent practically all its complications. The great drawback will be that on account of the technical difficulties, we will be unable, in most cases, to use an autogenous vaccine and must rely on the clinical symptoms instead of the index for the proper dosage. I think it will be possible, however, to get an appropriate index of our cases by making smears of the discharge and noticing the number of germs which are being taken up by the leucocytes. The number corresponds in a general way to the resistance. I will, in this connection, report one case. The patient, aged 19, had been suffering from his first attack of gonorrhea for three days when I saw him. The discharge was very profuse, lymphangitis of the penis and enlarged glands in the groin were present. Besides the gonococcus, staphylococcus aureus and albus were found in the discharge. Two days after this, on the fifth day of the disease, following rest in bed and a milk diet, the condition had only slightly improved and I vaccinated him with 5 M. gonococci, 50 M. aureus and 50 M. albus, the vaccine having been prepared from his own germs. Twenty-four hours later

the discharge had diminished one half, and the pain on urination was very slight; the patient in the meantime being up and about his work which kept him constantly on his feet. Forty-eight hours later, the discharge was limited to a morning drop, pain had entirely disappeared together with the lymphangitis and the enlarged glands. Despite repeated vaccinations, however, this slight discharge continued and I stopped it later with two instillations of argyrol.

I have, in every case, where the discharge was of long standing, caused it to greatly diminish with a few inoculations. I have not, however, succeeded in causing it to completely disappear in any case with the vaccine alone, but have been forced to use a little local treatment in order to completely stop it. As regards complications of gonorrhea, I have only treated three cases of gonorrheal rheumatism, all of which have been greatly relieved.

Still another bete noir of the surgeon is very amenable to vaccine therapy. The persistent sinuses following operations will in almost every case close under this treatment. I have seen this result in several and have several more under treatment which are progressing favorably. Fecal fistulae are much more refractory, because, on account of the ease of reinfection from the bowel, the germs are changing constantly.

Concerning the very important question of the comparative results obtained by the use of a stock vaccine and the one prepared from the particular strain of the germ infecting the patient, my experience agrees with that of practically every other observer, that far better results follow the use of an autogenous than a stock vaccine.

Time will not allow me to discuss whether it is necessary to gauge the frequency of the dose by the opsonic index. It will be sufficient to say that it is the opinion of the most careful observers



that the administration should be controlled by the index rather than by the clinical symptoms.

The possibilities of vaccine treatment are enormous and appeal strongly to the imagination; in some cases I fear too much so. It is difficult, I admit, to

keep from becoming over-enthusiastic, when we see the results obtained in cases where all other methods have failed; yet, if we temper our enthusiasm with the scientific judgment and control both by extended, careful and thorough observation, we will arrive at much safer and satisfactory conclusions.

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## THERAPEUTIC BACTERIAL INOCULATION WITH AND WITHOUT THE OPSONIC INDEX AS A GUIDE.

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A. P. OHLMACHER, M. D.

Detroit.

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It is now nearly five years since an English medical scientist of splendid mental attainments began practising a method of treating various infectious diseases by the microbe causing those diseases. For fifteen years this skilful technician had been patiently laying, in the laboratory and at the bedside, the foundation for the theory and practice that have now brought him a world-wide fame. Today, no one with open mind visits the laboratory and hospital in which Sir A. E. Wright carries on his work who does not come away a convert to the practice of therapeutic bacterial inoculation as based on the theory of opsonins, and who fails to become an enthusiastic admirer of the illustrious genius who has evolved what promises to open a new era in applied medical science.

The practice of therapeutic bacterial inoculation which we today owe to Wright was not the product of a passing inspiration. Rather, it was the fruit of intense, patient, studious application, aided by ingenuity, originality and a confidence born of long experience. The

fundamental idea in this practice—that of using the causative agent of the infectious disease to assist Nature in her efforts to conquer it—was not claimed by Wright. Nor did he hesitate to make free use of the work of all investigators who had concerned themselves with the problem of microparasitic diseases and of protective or curative immunity. But it was the *modification* of this procedure—the use of the bacterial parasite to check its own ravages—that Wright successfully effected, and today this forms the basis of his innovation. Out of it he evolved his now famous theory of opsonins and his opsonic index. Employing his opsonic index as the indicator, he effected a variation of previous methods of using pathogenic bacteria in the treatment of their diseases—a deviation very simple in nature but apparently most vital in importance. This modification was simply to use the microbe, killed by heating only to the thermal death-point, in a *dose much smaller* than had previously been used, and at *intervals much longer* than had ever been allowed. But in order that

he might assuredly establish this comparatively simple, but enormously important, departure from the methods of previous experimenters, Wright evolved a theory which seemed to explain the results that he had secured, and which furthermore furnished a valuable working guide in the study of the effects obtained by his procedure of inoculation with the causative microbe. So that, whatever else may be said of the theory of opsonins and of the method of determining the opsonic index, they have been of momentous influence in bringing to practical humanitarian usefulness the practice of therapeutic bacterial inoculation.

I say this much as an introduction to a brief summary of the results which have accrued in my personal experience with Wright's practice of opsonic or bacterial therapy, because I recognize that his work, like all effort that opens a new era in human progress, is being, and will be even more extensively, assailed by critics of varying degrees, and various motives. It is not that an innovation so carefully established needs my poor support, nor that its originator requires my small aid; but I only meet these protests in order that my influence may weigh in favor of the most extensive possible promulgation of Wright's opsonic theory and practice in the midst of the American medical profession, with the ultimate result that afflicted humanity may enjoy their benefits as speedily as possible. For I hold that it is sinful for us as physicians to deny our suffering fellow-men the boon of a promising means of combating disease, simply because that means does not happen to accord with our own experience. In the present instance, it may come about that the theory will not reconcile itself with many other widely accepted current hypotheses; or it may be that experiments on guinea pigs, rabbits or mice will not allow its proof.

All this, however, should be relegated by open-minded medical men, once they have assured themselves that ill-health in their patients can be rectified, or better still, as we shall doubtless presently learn, be prevented.

So to those who have in various ways contributed towards the erection of the edifice represented by Wright's achievement; to those who had previously employed his method of bacterial inoculation without recognizing the importance of the comparatively simple modifications which are, after all, the really vital features of Wright's work; to those who have stewed, and brewed, and frozen, and crushed, and split with acids and alkalis, pathogenic bacteria in the hopes of extracting some healing element; and to those who have so industriously chased side-chain sunbeams under the stimulus of Ehrlich's beautiful hypothesis, but fruitlessly so far as practical therapeutic results are concerned—to all such, I say, lay aside your prejudice, your rancor, your jealousy, and give to Wright's practice of therapeutic bacterial inoculation a fair trial, following his directions accurately, not in the test tube or the incubator, not on guinea pigs or monkeys, but at the bedside of afflicted human beings.

Suppose, as Wright readily admits, that the so-called "opsonin" is not the only important substance aroused in the blood serum of the inoculated individual. What if time should show the theory of opsonins untenable, and the method of obtaining the opsonic index to be crude or faulty? Are these plausible reasons for denying our patients the benefits of bacterial therapy? Did not the inspiration of Semmelweis long antedate the exact knowledge of the relation which bacteria bear to puerperal sepsis? And was not Lister's principle applied in its life-saving effectiveness before our information concerning the bacteriology of surgical infection was extensive?

In my medical career, now numbering nearly twenty years, I have had the opportunity of viewing practice from a number of different points of view. In these years I have had the very greatest satisfaction with only two methods of therapeutic effort—the specific serum treatment of diphtheria and the treatment of various subacute and chronic infections by artificial bacterial inoculation according to the method promulgated by Wright. Beside the splendid outcome of these two modes of biologic therapy, even the best of my efforts with other successful medical and surgical procedures seem crude and wanting. From the day when I used antidiphtheric serum of my own production in the treatment of my own cases of diphtheria, to the present when I once more find myself active in using bacterial products for therapeutic purposes at the bedside, I have never subscribed to any of the numerous widely proclaimed innovations in biologic therapy. It was at least two years in which I followed Wright's published reports before I succumbed to the rational appeal of his method of practice; but now that I have had nine months' experience in personally testing this method in a very considerable number of widely different infectious processes, and since I have repeatedly witnessed results entirely out of accord with all that my former observation had taught me to expect, I have become an enthusiastic advocate of Wright's practice of therapeutic bacterial inoculation.

In order that I might give you some idea of the reasons for my optimistic attitude it would be desirable for me to lay before you a detailed account of my clinical experience in treating various affections by bacterial inoculation, but this is impossible on the present occasion. I can only remind you that some of my fuller accounts have already been published and that others are forth-

coming. A short summary is all that can now be offered.

As indicated by its title, this paper gives me occasion to say that the taking of the opsonic index has not been uniformly pursued. Instead, I have purposely at times, and by force of circumstances on other occasions, proceeded with my inoculations of the corresponding or the autogenous germ without resorting to the opsonic index. Of course this departure from the strictly scientific procedure has been rendered possible to me through the earlier experience when the opsonic index was used as a control for the inoculations, just as our present refinement in the dose of the inoculating bacterial emulsion ("vaccine" as Wright calls it, or "opsonogen" as I have ventured to name it) and the approximately correct intervals between treatments were originally worked out by Wright's using his opsonic index as a guide. But my more recent results have been so successful that I have not regretted the taking of a step which, in the more ordinary cases, enables me to dispense with the very tedious, time-consuming procedure of measuring the opsonic power of the blood.

Now while I have come to lay somewhat less stress on the opsonic index, especially after preliminary experience, and a more thorough knowledge of the local and constitutional reactions to bacterial inoculation, the question of exact dosage of the inoculated bacteria has come into increasing prominence. It is here, I believe, that much of success or failure with Wright's practice will lie; and this consideration again is only to be satisfied after cautious clinical experimentation in which one has obtained his experience through the use of the opsonic index.

Working in this manner for a period now amounting to nine months, and treating during this time a very consid-



erable number of cases representing various types of subacute and chronic infections, including several not previously embraced in the list of diseases amenable to bacterial therapy, I wish to say that both in isolated instances and in the aggregate, my results have exceeded my fondest expectations, and there is nothing in my original reports that I now wish to retract.

In skin diseases I have handled with gratifying outcome, acne, furunculosis, sycosis, seborrheic dermatitis, and eczema. Among surgical infections, either accidental or post-operative, I have obtained surprisingly successful issues in infected wounds of the fingers, hands and feet, in axillary adenitis after boils in the armpit, in unhealed fistulas of the breast, abdomen, chest and leg. In one example of chronic empyema in a child, and another in an adult, speedy recovery has been effected by small puncture and intercostal drainage when fortified by inoculation with the autogenous microbe. Unhealed thoracic empyema with enormous suppuration of eight weeks' duration has been brought to perfect recovery in four weeks with three inoculations of the autogenous streptococcus. A case of cystitis and pyelonephritis of apparently terminal degree was brought to a marvelous restoration with five injections of the colon bacillus from the urinary pus. In a similar lesion of tuberculous origin steady, substantial improvement has followed four months' treatment with a mixed opsonogen of tuberculin and the pneumococcus from the pus of the urine. A well-advanced case of unmixed tubercle bacillus infection of the right lung has been brought to practical symptomatic recovery in four months with no other remedy than

the proper doses of tuberculin after the method advised by Wright. Several other cases of pulmonary tuberculosis are progressing most favorably under the same line of treatment. In gonorrheal diseases, including subacute and chronic urethritis, prostatitis, vesiculitis, epididymitis, vaginitis, conjunctivitis, ophthalmia, and especially in gonorrheal arthritis or so-called gonorrheal rheumatism, my already large and constantly growing experience has been most satisfactory. In one recent case of puerperal streptococcus infection a rapid and highly pleasing effect was secured by the appropriate inoculations.

Throughout this experience, of which the above is but the merest outline, I have had constant evidences of the specific, potent, far-reaching effects of proper bacterial inoculations—evidences that are quite incredible to one familiar with what medical or surgical art was heretofore able to accomplish under like conditions, and that one after another have emerged to my very great astonishment. I cannot now go into a recital of these secondary effects, some of which, I find, have been noted by Wright and his associates. But with what has followed in the way of direct favorable influences in the different affections I have treated, and with what has succeeded to indicate these more far-reaching effects, I reassert my full conversion to Wright's splendid practice of curative bacterial therapy, and my firm belief that it has inaugurated another of the several eras through which medicine has emerged to attain the dignity of a beautiful scientific pursuit and a beneficent aid to human comfort and welfare.

## SOME SUGGESTIONS TO THE PRACTITIONER FOR THE EXAMINATION OF THE INSANE.\*

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JAMES F. CANAVAN, M. D.Assistant Physician, Northern Michigan Asylum, Traverse City.

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As a result of a number of years observation of medical histories accompanying insane cases, I am of the opinion that inasmuch as the practitioner is invariably the first to examine such cases, it might not be amiss to offer some suggestions.

As is well known, a good history is invaluable. It takes time and persistence, but is it not worth while? In psychiatry much depends upon the history. The diagnosis and prognosis are often largely controlled by family history, together with the personal history and onset.

Often the physician does not see relatives, or perhaps there are none. Again he may be called to examine a patient in court; no relatives or friends to question—what then? He should examine the patient thoroughly and make complete report of his findings. Obtain a history from the patient. Take him back over his family history, personal history, and onset—all very valuable. Later on a history from some relative may be obtained, and we have then a most important comparison, because the statements of the patient are verified or not. Many times histories are made out and contain, perhaps, the patient's name and age—nothing else.

What, then constitutes a good history, and how should one proceed to examine a patient suffering from supposed mental disease? First of all, *the remote*

*family history.* Most important is the occurrence or not of mental diseases—alcoholism, apoplexy, heart or kidney diseases, or syphilis. The occurrence of any of these conditions should be noted in the grandparents, uncles, aunts, parents, brothers and sisters; the ages at which any of the conditions occurred. Condition of mother during pregnancy, birth of patient—normal or not—instrumental. *The general characteristics of the family.* Ascertain if there have been suicides, criminals, cranks, consanguinity in the family.

Next consider *the personal history*, development in childhood, diseases, trauma, convulsions, nightmare, chorea. Puberty; ability in school; attitude toward study; occupations; habits; if a user of alcohol, determine the extent and its effects; syphilis. Steadiness and success at work. Religious manifestations. Menstruation, pregnancies, sexual life, masturbation. Criminal tendencies, domestic relations, social feelings, number and health of children, miscarriages, character and condition previous to present disease, previous attacks of mental disease with date and duration.

*The onset.* Give the date of the first symptoms of mental disturbance and course of disease up to the time of examination. Note if there has been a change in character, habits, work, cleanliness, sleep. *Physical condition.* Has the patient gained or lost weight; the bowels, urine, appetite, menses, sexual life should be considered. Has the pa-

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\*Read before the Grand Traverse County Medical Society, April 16, 1907.

tient been excited or depressed, dangerous to self and others?

In the examination of insane patients the subject of delusions and hallucinations is most important. Often there is recorded simply the mere fact that the characteristics of the mental disease are "delusions," or "hallucinations." It is not sufficient to state that a patient has delusions or hallucinations or illusions. One should always state how the patient is hallucinated, what the delusions or illusions are; and, if one is not absolutely certain of his ground, it might be better to describe accurately the conditions and not use the terms mentioned. If the patient hears voices or strange noises or roaring in the head; or sees strange objects, visions, faces, animals; or miscalls real things or people; tastes or smells peculiar things; feels as if there were things crawling on him or touching him; believes that he is something that he is not; is poisoned, persecuted, and so on, better describe the patient's own interpretation of his strange sensations and beliefs.

The *immediate examination* of the patient should come next; and it is expected, of course, that the physician make a thorough physical examination of the patient; and, in addition, ascertain something of the patient's gait, station (Romberg), ability to co-ordinate, tics, tremors; also note any abnormal findings in the cranial nerves, vision and hearing. Next and very important are the reflexes. What are the knee jerks, foot clonus? Note the pupils—size. Are they equal, regular or irregular in outline? Do they react to light (direct and consensual)? Also reaction to accommodation. Note also the cremasteric and plantar (Babinski) reflexes.

Next in order the sensations can be considered—paresthesia, anesthesia. Note the reaction to tactile or painful stimuli, also reaction to heat and cold.

The *mental examination* proper follows,

and usually should begin with a description of the general appearance and attitude of the patient. Is the patient quiet, orderly, obedient, pleasant, sociable; or the reverse? Note the facial expression—is it sad, dreamy, smiling, immobile, stolid, mask-like? Has the patient occupied himself about the house? Has he worked? Does he read, or is he listless and indolent? Note the general characteristics of the patient's conversation. Does he lack initiative? Does he talk freely or not when questioned? Are his answers slow and much delayed? Has he associated with others, or is he seclusive? Have there been restlessness, aimless habits, standing or sitting in one position? Is the patient able to dress or undress alone, or with help? Are his movements fast or very slow? What are the habits—cleanly or untidy? Personal appearance—careful and neat, or slovenly and careless? Have there been attitudes as if listening, or has the patient acted as if seeing something? Note if there have been posing, muscular resistance, or any peculiar movements on the part of the patient. What has the sleep been, and has the patient been eating well or not?

The rest of the mental examination is usually done by means of questions and answers. The patient is asked direct questions and both the questions and the patient's answers are recorded. The usual mental status is, of necessity, lengthy, and I realize that the busy practitioner would be unable, probably, to take the time necessary to complete such a status. A very convenient and comparatively short set of questions covering clearness of consciousness, speech, orientation, memory, hallucinations and delusions, are the following. As already stated, they should be recorded with the patient's answers.

What is your name?

What is your occupation?

How old are you?



Where were you born?  
 When were you born?  
 Did you go to school?  
 At what age?  
 How long did you go to school?  
 Who was your first teacher?  
 What did you do after finishing school?  
 Where did you work?  
 Are you married or single?  
 When were you married?  
 Any children?  
 What are their ages?  
 Where were you a week ago?  
 Where were you a month ago?  
 Where were you last Christmas?

(It might be well at this point to ascertain if the patient retains his former school knowledge. This is determined by asking him simple problems, simple questions on geography and history, and upon the general topics. Ask him what the capital of the United States is, what is the capital of Michigan, what is the largest city in the world, who is president of the United States, who is governor of Michigan, name the states bounding Michigan, what is the largest river in the United States, repeat the Lords Prayer, repeat some little school song or recitation learned in school, then ask for some simple problems in arithmetic.)

Where is your home?  
 What year is this?  
 What month is this?  
 What date?  
 Which day of the week?  
 In what city are you?  
 In what kind of a house are you?  
 Who are the people about you?  
 Are you sad?  
 Are you persecuted?  
 Are you sick?  
 Are you ridiculed?  
 Do you have roaring in the head?  
 Noises in the ears?  
 Do you sometimes hear noises here or without?

At night?—and if the patient talks freely about these strange noises one might then ask if the patient hears voices. Then ask:

Are not the carpets of peculiar color?

Have you ever seen strange things, particularly at night?—and depending upon the answers lead up to asking the patient if he has actually seen visions.

Briefly, then, these questions have covered the patient's mental condition, his general reaction to questions, and informs us if his consciousness is clear, that is to say, has he or has he not clearly understood the questions asked.

By orientation is meant the patient's ability to give correctly the year, month, date, day, where he is, and if he can judge correctly the people around him.

You will see from the questions that memory for remote events is considered, and also for more recent occurrences.

The patient's mood, judgment and conclusions (which include delusion formation) and hallucinations are covered by the remaining questions.

In conclusion I would like to urge the necessity of better histories. It is of great value to the practitioner and of extreme importance to the institution that a given case might afterward be committed. Psychiatry has been surrounded with more or less mystery, but a vast amount of work has been done and is being done, and in the comparatively near future this very complex subject may be made clear.

If any of you are still further interested in this subject, you are very welcome to attend any of our case readings held at the Asylum almost daily. At such readings cases are presented which have been studied thoroughly, the complete history read before the entire staff, the various symptoms are demonstrated, and finally the discussion and diagnosis. In this manner one might more clearly ascertain just how cases are examined.

## RESUME OF SOME OF THE ACCOMPLISHMENTS OF THE MICHIGAN STATE MEDICAL BOARD DURING 1906.\*

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B. D. HARISON, M. D.

Secretary of the State Board of Registration,  
Detroit.

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The majority of those present tonight will remember the requirements of the Howell Medical Act which was in force in this State from September, 1883, until September, 1899. The requirements of this act were simply perfunctory—requiring as a basis for license—registration through an affidavit filed with the county clerk of a diploma from any legally organized medical college, however low its standard, and also granting licenses to those practitioners of five years' standing in the state prior to 1883, who did not, in a very large percentage of cases, possess the qualification of a reputable course in a medical college, much less a diploma of any description. No method of review of qualifications existed under the 1883 Medical Act, so-called. You will also probably remember that several so-called medical colleges were legally established in neighboring states with the sole object of supplying, at almost a moment's notice, the opportunities of the Michigan field. Some fifteen hundred of these diplomas were registered in this state within a period of one year.

The Chandler Medical Act, as passed by the legislature, became effective in September, 1899. Up to this time, Michigan enjoyed the somewhat doubtful distinction of being one of, if not the lowest grade states in the Union from the standpoint of legal medical require-

ments. The Chandler Medical Act was not in any sense a model act, but it, temporarily, at least, answered the purpose for which it was enacted, and established a board with opportunities for housecleaning and future advancement.

I need not go into the detail of the board's accomplishments during the period of 1899-1903. This detail is well known to the great majority of the members of the profession in the state. I may, however, note that during this period the present policy and methods of administration were laid and developed by the board, including the policy of medical reciprocity with other states which had, up to this period, been championed almost solely in this state by a member of this society who, I believe, is present here tonight—Doctor Amberg.

The Medical Act of 1899 provided four methods of qualifying for registration:

First—Re-registration.

Second—Examination before the board without prior qualification of graduation from a medical college.

Third—Approved medical diploma.

Fourth—Reciprocity.

The only standard of preliminary education provided in this act was that included in the medical diploma and was at the best of very doubtful quantity and quality.

The Nottingham Medical Act of 1903, amending the Chandler Act, provided

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\*Read before the Wayne County Medical Society, February 3, 1907.

practically for only two methods of registration, i. e., examination before the board with the prior minimum requirement of a high school diploma of a certain grade and graduation from a recognized medical college having at least a four years' course of not less than seven months in each calendar year, and the endorsement of licenses of other states which fulfilled the Michigan requirements. It gave the board authority to set and administer both the preliminary and medical standards and provided a method for the cancellation of the certificates of those licentiates who were guilty of professional and moral misconduct, and also the certificates of those who advertised venereal diseases. Further amendments in 1905 increased the fine for violation of the act to two hundred dollars, taking cases for trial to the Recorder's and Circuit Courts, and provided for the cancellation of the certificates of those practitioners employing "cappers" or "runners," and also permitted the division of the board examination, at the option of the applicant, into a primary and a final examination.

As far back as 1900, the board set for its use in the recognition of colleges, a suggestive detailed medical standard of some 3,600 hours, divided into lectures and laboratory hours. This method of standard was gradually improved and, at the present time, consists of a minimum of 4,000 hours, covering a course of four years of eight months in separate years, divided into lectures, laboratory and clinics. This method of standard has been adopted by the Association of American Medical Colleges and by the American Confederation of State Medical Boards. A little less than a year ago, a prominent member of a board living within at least one hundred miles from Chicago, paid us the compliment of claiming the authorship of this method of standard in a crude form in 1904, but when furnished with a Michi-

gan printed standard under date of 1900, he has not since been heard from on the subject. After the passage of the 1903 act, the board set a detailed standard of preliminary education, the method of which is similar to the New York standard, consisting of a total of fifteen units as the minimum value of a high school diploma, a unit representing four recitation periods a week of forty-five minutes each during a school year of thirty-six weeks. It differed from the New York standard in that it had a three-fifth requirement with a two-fifth elective course with a maximum and minimum credit to each subject, while the New York standard was wholly elective and without a maximum and minimum subject credit.

In the efficient administering of this method of both preliminary and medical standards, proper application blanks are essential, and such blanks, which are in fact testimony, adopted and in use by this board are arranged in such a manner that every hour of the preliminary and medical course is accounted for and emphasized and is sworn to by the applicant and certified to by the principal of the school and the dean or secretary of the medical college. By this method only, is it possible to obtain in every case a full and complete measure of the requirements demanded. The recognition of the diploma, whether a high school or a medical college one, is made dependent upon its individual worth, not upon the form of recognition of its dependency upon other diplomas issued by the same college. This method emphasizes the requirements of individual worth as opposed to class value.

The usual method adopted by states in the recognition of medical colleges is to list them in one class, i. e., simply recognize them fully or not at all. An exception to this method is the New York form of recognition in two classes, class I recognizing colleges which ful-



fill every requirement, and class II representing colleges whose courses are recognized for advanced standing in fully recognized colleges. Michigan recognizes, under her medical act, colleges in three classes or groups: Group I including those colleges fully complying with the standards of preliminary and medical education; group II including those colleges which at the date of recognition fall below the standard or have become extinct, but which have in the past fulfilled the standard of this state at the date of the diploma; and group III including those colleges whose courses are recognized for advanced standing in colleges under group I. The disadvantage of listing colleges in one class only is apparent. In order to give the older graduates their legal rights, it is often necessary to recognize colleges which in a very large degree are below standard at the date of recognition or at the present time. And again, in the event of a college being taken off the list for cause or otherwise, without a third group covering the recognition for advanced standing in recognized colleges, the students in such unlisted colleges are subject to the loss of their legal standing and credit. Without group II, it is necessary either to recognize an inferior college or to deny a certain class of graduates their legal and equitable rights. Through the Michigan method of recognizing individual worth as opposed to class value, the college, in the applications of its graduates for registration, is forced to demonstrate under oath and the seal of the college its actual standard, and the mere listing of a college in a certain group gives it no rights unless it properly belongs there. Under the Michigan method also, a college cannot remain upon a recognized list for a longer period than one year and in order to continue its further recognition or listing must be re-investigated. It has been found a great deal

easier to *list* a college than it is to *unlist* it once it has been listed.

In order to bring before you in an intelligent manner, a resume of the board's work during the past year it has been necessary for me to review the accomplishments of preceding years and this former work has simply been extended, continued and elaborated during the year 1906. I can, therefore, very briefly refer to this period of administration and its practical results. Early in the year, a conference was held at Pittsburg between the New York Board of Regents and a member of this board in order to harmonize the standards of preliminary education of this state and that of New York, having in view the endorsement of each other's preliminary requirements and medical licenses. As I have before noted, the Michigan requirement of a total of fifteen units representing the value of the high school diploma is based upon a unit composed of a four recitation period a week. New York demanded practically a minimum standard of twelve units, a unit representing a five recitation period a week during a school year, or forty-eight counts, as then totaled by New York. Reducing the Michigan requirement of fifteen units to counts equaled the total requirement of sixty counts. This brought out the fact that a unit should represent one recitation a week during a school year, with the result that five weekly recitation periods should represent five counts or its equivalent. The five count unit and the requirement of twelve New York units should, therefore, represent sixty counts. In order, therefore, to harmonize the Michigan four recitation a week unit with the New York five recitation a week unit it was necessary, in order to give a New York credential its full value, to create a new method of standard, consisting of a major unit representing five recitation periods a week with a total requirement

of twelve major units or sixty counts, and a minor unit representing four periods a week with a total requirement of fifteen units or sixty counts. Owing to the different unit value, a New York certificate was only able to qualify through the Michigan method to the extent of twelve units with a loss of twenty per cent. of its actual value. In the new system of standard adopted, through the major unit requirement, the New York applicant could receive the full value of his credential, and as all the subjects in Michigan high schools represent five period a week recitations, with the exception of English and history, the Michigan applicant could, through the new system, obtain additional credit for work actually done.

Having adopted the new system as agreed upon at this conference, an agreement of reciprocity between New York and Michigan was made, dating August first, last, and is in effect today, whereby New York recognizes all certificates obtained through the qualification of a recognized diploma and a state board examination in Michigan as fully equivalent to the New York requirements; Michigan, likewise, recognizing an equivalent New York certificate.

The January, 1907, number of the *Bulletin of the Association of American Medical Colleges* has this to say of the recently adopted Michigan preliminary standard:

"This system possesses the merit of being exceedingly definite, but withal allowing the student great latitude and giving him credit for all work done in the secondary school. There is much in this system that is commendable, although it might not meet the individual requirements of every medical college in the matter of required and elective studies. It does, however, represent an elastic standard—elastic in the sense that it can be adapted to any educational

system, the fundamental unit being the count which represents one recitation period, the simplest system now in vogue."

The New York Board of Regents has intimated recently that it intended adopting the Michigan detail of required subjects, and states in connection therewith that until this event takes place, unquestionably, the Michigan standard is, theoretically at least, a higher one than that of New York.

Since entering into reciprocity with New York, some misunderstanding arose relative to the methods of administration with a threat from the New York Board that if its contentions were not acceded to it might terminate its agreement with this state. The matter, however, has been amicably settled by the New York board agreeing to accept the Michigan method of investigating the exact measure of the qualification as opposed to the method of accepting as *prima facie* evidence of qualification, the diploma or certificate.

Another important matter adjusted during the past year has been the harmonizing of the factors influencing standards in the United States. These factors are: First—The medical boards, represented by the American Confederation; second—the medical colleges, represented by the Association of American Medical Colleges, and third—the profession, represented by the Council on Medical Education of the A. M. A. Some two years ago, the Association of American Medical Colleges and the American Confederation adopted identical standards of medical education; or, in other words, the 4,000 hour detailed standard as previously referred to. Last year a committee of the state medical boards met a similar committee from the Association of American Medical Colleges and agreed upon a standard of preliminary education. The council on medical education had established its

own standard which was not as high as one as that adopted by the boards and colleges, and its policy, up to within a very short time ago, was laid along the lines of assuming to dictate in the matter and with the consequent ignoring of the college and board associations. The council, however, has recently intimated its desire to act in unison with the other two factors and is ready to sign an agreement to that effect. The unification and harmonizing of these factors, which make more than probable future ideals in medical education and qualification, seemed hardly possible a short time ago, and has, until the past year, although frequently attempted in one form or another, resulted in absolute failure. The harmonizing of the standards of such states as New York, New Jersey, Ohio and Michigan, resulting in the mutual recognition of the fruits of carefully administered standards cannot but result in a far reaching benefit and is an object lesson to other states which will, eventually, lead to the uniformity of requirements throughout all of the states. Medical reciprocity, which had for its primary object the relieving of practitioners removing from one state to another state of the necessity of passing additional board examinations, stands for a more substantial and material benefit. When entered into along proper lines, reciprocity results, not only

in uniformity of requirements, but is the practical lever by which higher and better standards and methods are acquired. This has been demonstrated over and over again. In a leading article in a recent number of the *New York Medical Record* on the subject of advances made during the past twenty-five years in medicine, the author credited medical reciprocity as being the most important work accomplished from the standpoint of higher and more practical qualifications which resulted directly to the benefit of the people.

The two years following the passage of the 1903 Medical Act saw a large decrease in the number of medical students registered in some of the colleges of this state. The reason for this was the increased qualifications for matriculation demanded by such act. This year, however, the number of students registering has greatly increased, demonstrating that the higher requirements can be met without serious loss to the medical colleges.

I regret that time will not permit me to lay before you this evening the accomplishments of the board in full during the past year. I have only, within the limits of this paper, been able, very imperfectly, to refer to the more important matters which have engaged the board's attention.

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**Dust and Tuberculosis.**—The commonly employed methods of house cleaning are sharply criticised by G. Homan, who would banish from domestic use the broom and duster or any other contrivance by which dust is set afloat in the atmosphere. He would have the vacuum or pneumatic method of house cleaning made compulsory by law in every hotel, club, theater, church, office building or business establishment, and the apparatus for such should be as essential a part of the equipment as that for ventilation, fire protection, etc. He would also urge the use of this method in private homes, especially where car-

pets, heavy curtains and upholstery are in use. If the old methods involving the dissemination of household dust prevail, efforts to eradicate human tuberculosis must of necessity be a failure. He gives as examples of the evil, personally observed instances of club houses, in which the operations of daily house cleaning are carried on alongside of tables where meals are being served and otherwise during the times when they are occupied by their patrons, even when the professed object of the club is the promotion of health and bodily development.—*J. A. M. A.*, March 23, 1907.



## REMARKS ON THE EXAMINATION OF PATIENTS SUFFERING FROM STOMACH DISORDERS.\*

HENRY VAN DEN BERG, M. D.

Grand Rapids.

When Kussmaul, in 1869, first used the stomach tube in the treatment of diseases, Liebermeister correctly prophesied that this maneuver would mark an epoch in gastric pathology and therapy.

When Leube, in 1871, first recommended the stomach tube for purposes of diagnosis, he cleared the way for the ready diagnosis of stomach diseases.

When a patient consults one for a stomach disorder the first thing which is routinely done is the taking of as accurate a history as possible, which procedure cannot be dispensed with, inasmuch as the etiology may lie here, and later upon finding the exact nature of the disorder (especially in functional disorders) the treatment which one outlines may be largely along the line of correction of the manner of living, as indicated, such as taking more time for meals, quantity and kind of food or drink or whatever the indiscretion may be. By the time one has collected all the historical data, one usually makes a tentative diagnosis which may often be confirmed upon further investigation.

Next comes the physical examination to detect something of a pathological import. A chronic heart-disease, certain chronic lung affections and cirrhosis of the liver may cause chronic engorgement of the mucous membrane of the stomach, which means chronic gastritis. I would specially like to call your attention to the importance of the consideration of gall-bladder troubles which are

far more often the cause of so-called gastric disorders than is generally supposed. If any tenderness is elicited upon pressure over that area, it is well to go into the history of gall-bladder troubles thoroughly. I will here cite a case which I had last fall:

Mr. V.—Age 43.

*General History.* A great deal of headache since childhood, never entirely free from it—otherwise negative.

*Family History.* Negative.

*Development of present trouble.* Eight years ago had an attack of stomach trouble which lasted for six weeks. As he remembers this attack, he had anorexia, nausea, vomiting and a great deal of pain in the epigastrium; ever since, has had occasional pain in his epigastrium especially from one to two hours after meals. This present attack came on two and a half weeks ago with anorexia, nausea, vomiting and sharp pain in the epigastrium which usually came on from one-half to two hours after meals. This pain radiated over the abdomen extending underneath the scapula. Also pain in lumbar region. No temperature or chill; no jaundice; never vomited any blood.

*Physical Examination.* Extremely tender in middle of epigastrium (finger point area) and over the gall-bladder. Slight tenderness over the small intestines; gall-bladder not enlarged; liver area normal. The stomach analysis showed a condition of hyperchlorhydria. No blood could be found in the stomach contents or in the stools. This patient came for stomach trouble of eight years standing, and during that time had taken a great deal of medicine. Although by no means typical, I was not so sure that the condition was not one of ulcer, on account of the extreme tenderness in the epigastrium, and inasmuch as an

\*Read before the Kent County Medical Society, April 10, 1907.

ulcer may extend into the pylorus or duodenum which might account for the tenderness in the gall-bladder region. Then you might go still farther and say that there is no particular reason why both conditions might not exist at the same time. Hemorrhage (which could not be detected) is not pathognomonic in ulcer and with the presence of hyperchlorhydria I made a diagnosis of cholecystitis with possibility of gastric ulcer. I told him I would treat him for ulcer which was as much as could be done medically for cholecystitis. Patient grew rapidly better and in a month and a half he had gained twenty and a half pounds in weight. November 1st, two months after I had first seen him, patient was feeling perfectly well and still increasing in weight. No tenderness in epigastrium but tender over the gall-bladder, so then felt reasonably sure of "cholecystitis." This is a history of only one case but one which I think will bring out the point of the importance of the consideration of gall-bladder troubles in connection with a stomach trouble.

Then the examination of the teeth, kidneys, appendix, stomach, intestines and spleen should be made, as well as an examination for enteroptosis. Possibly the presence of new growths may be discovered and thus occasionally your diagnosis may be determined. However, to both stop your investigation and take up treatment at this point, is an injustice to your patient and unsatisfactory to yourself, especially, inasmuch as we now have methods which are practically simple yet invaluable.

It is unsafe to go according to histories alone, for the reason that they may be incomplete and uncertain, regardless of how much care you may exercise in the taking of them. I will give briefly the histories of two cases showing similar subjective symptoms—however in dissimilar gastric conditions—one exhibiting a low acidity and the other an abnormally high one.

Present trouble commenced six years ago with vomiting of bile and mucus. This was followed by a feeling of tightness about the waist, occa-

sionally feeling a drawing pain in the epigastrium. Burning from one to two hours after meals, considerable belching of gas and eructations of mouthfuls of fluid which she says sometimes would taste like the food eaten, at other times sour and bitter. Complaints of gas in stomach and bowels. Appetite and taste always good. Meats agree, but she cannot eat fats and pastry. Bowels regular. Patient is of nervous temperament. Habits of eating are good. Lost thirty and a half pounds in weight.

Physical Examination—Negative.

Three test meals were analyzed showing the following:

No hydrochloric acid—free or combined.

Total acidity—varying from six to eight.

Peptic digestion—negative.

No lactic acid.

Motility good—microscopical examination negative.

Test meal—shredded wheat biscuit and water.

Case Two.—Mr. D., aged 38.

General and family histories negative.

Present trouble came on suddenly at night three years ago, with choking and nervous sensation. All summer, experienced palpitation of the heart and was very nervous. Great deal of gas. Eructations of mouthfuls of food eaten—sour to taste. Distress and burning in epigastrium an hour after meals which usually last until the next meal. Great deal of headache and dizziness. Appetite and taste good, nauseated sometimes—habits good. Lost 38 pounds in the last two years.

Physical Examination—negative.

Three test meals showing the following:

Free hydrochloric acid—from 70 to 76.

Combined hydrochloric acid—from 16 to 36.

Total acidity—from 96 to 118.

Peptic digestion—good.

Microscopical examination—negative.

Now these histories you will have noticed present many symptoms so much in common as to be most puzzling. Both patients complained of gas, distress and burning in epigastrium, beginning an hour after meals; eructations of mouthfuls sour to taste; loss of weight; appetite and taste good. Both were of nervous temperament, yet the former

patient presented no hydrochloric acid (free or combined), and the latter an excess. Now, with simply these histories for your data, and no more, your treatment naturally would be experimental. You may feel quite positive as to your diagnosis, but you may be mistaken. Pepsin and hydrochloric acid have been routinely prescribed in spite of the fact that about sixty per cent. of the functional gastric disorders are hyperchlorhydric, which in that event is simply adding fuel to the fire. Or you may prescribe an alkali which may be just the thing you do not want.

It is like treating a blood case without the use of the microscope or diagnosing a heart case without the use of the stethoscope. You want as complete an insight and understanding of the perversion of the physiological functions as is possible—a mental picture, so to speak.

You should not be content to know that a tumor is present in any given locality or that a gastritis or ulcer is present, but you want to know to what extent the specific functions are perverted. An exact knowledge of these functions is necessary before a rational therapeutics can be instituted, and this can best be demonstrated by the use of the stomach tube.

It might be well at this point to state that although your patient rarely fails to entertain the prospect of having the tube introduced with much dread, yet you rarely have to resort to much persuasion upon telling him that it is harmless and not so bad, and that every woman and child can do so with not much discomfort (presupposing that you have instructed your patient regarding the object and utility). Probably the best and most simple apparatus is an ordinary soft elastic, single tube with bulb, and for lavage, substitute the small rubber funnel with a six-inch glass funnel which materially shortens the process and affords an excellent opportu-

ity for inspection of the washings. The technic is simple enough. In office work you will have your patient in the sitting posture and have him protected with a large rubber apron and have plenty of clean towels at hand. In hospital work you can have your patient in bed in the recumbent posture which I really prefer. Before introducing the tube it is well to moisten it with water—oil or glycerine are not necessary for the reason that there is generally enough mucus in the esophagus to facilitate the passage. I usually tell the patient to swallow as soon as the tube touches the pharyngeal wall and to breathe deeply and regularly, and that he cannot choke inasmuch as the tube goes into the esophagus and not into the air passages. Now with the tube in the stomach, and not having met resistance in its passage through the esophagus, you have determined its permeability, which is not without importance.

As a rule, "macroscopical" examination of aspirated stomach contents, and also the lavage, reveal certain peculiarities; therefore from the time you commence to aspirate your observation commences. You should note the general appearance, quantity, color, presence of food—particles eaten at a previous meal or meals—presence of mucus, small coagulae of blood, degree of mastication and possible pieces of mucosa or of new growths. You should also note the odor. Any one of these factors may be of great importance in establishing a diagnosis, or, in other words, "Your diagnosis may lie in this procedure." It might be well to state at this point, that in washing the stomach you should always make an effort to regain the quantity that has entered the stomach on account of the possibility of over distending the organ and especially when using antiseptic solutions for fear of poisoning, should too large quantities be left.



The next step is to examine the aspirated contents chemically for free and combined hydrochloric acids, organic acids, total acidity, lactic acid, probable bile, peptic digestion (butyric and acetic acids can be detected by their odor). This is extensive enough for all practical purposes. A microscopic examination is made for bacteria, yeasts, sarcines, fungi, blood and pus cells and possibly protozoa, fragments of mucosa and neoplasms.

In the macroscopic examination probably the most practical and important factors are the presence of mucus and the regularly finding of food in the fasting stomach six or seven hours after meals, indicating impaired motility, which may be due to atony, dilatation or stenosis or to a combination of these. The presence of food fourteen hours after would indicate stagnation and retention. This establishes your diagnosis so far as stagnation is concerned, and cannot be satisfactorily demonstrated in any other way.

You cannot safely base your diagnosis upon a statement that regurgitation of food is experienced long after eating. In case of stagnation the peculiar characteristic odor of gastric contents is sometimes changed, as before stated, by the presence of butyric or acetic acids, or both, or by putrefactive processes. The well known rancid odor of butyric acid is easily recognized, while the putrefactive processes give to it a fetid odor.

Now it is highly important to establish the etiology of the stagnation present, inasmuch as malignancy may play the important role. Here your history and physical examination are important. However, it must be remembered that you get a picture of malignancy such as rapid loss of weight, coffee ground vomiting and palpable tumor without malignancy. In persistent vomiting, no matter from what cause, you get loss

of weight on account of lack of assimilated food. Coffee ground vomitus does not necessarily mean blood, inasmuch as the presence of gastrosia-fungosa may present the same grave, clinical picture. A palpable tumor may be nothing more than a spastically contracted pylorus or simple fibrous hypertrophy. On the other hand, if you are going to depend upon the presence of a palpable tumor you may fail for the reason that in pyloric carcinoma or even in the lesser curvature, the situation of the growth is such that it may be hidden by the liver. It is oftentimes not an easy matter to palpate a tumor situated in the posterior wall. The all important point then in cancer of the stomach is an early diagnosis. The detection of Boas-Oppler bacilli and lactic acid, in absence of free hydrochloric acid, will often lead to a diagnosis long before a tumor is palpable. The presence of these are of greater diagnostic value, indicating malignant stenosis, than the finding of sarcines in benign obstruction.

It is possible to have present Boas-Oppler bacilli in benign obstruction, therefore their presence is not pathognomonic of cancer. However, Conheim states that about 99 per cent of cases of stagnation with presence of Boas-Oppler bacilli and lactic acid, in absence of hydrochloric acid, are malignant and therefore maintains that the presence of these bacilli can be regarded as an indication for operative procedure.

The diagnosis of cancer of the stomach from the absence or presence of hydrochloric acid *alone*, ought never to be made; however, when associated with other symptoms leaning toward malignancy we may assume with considerable certainty that the demonstration of the presence of hydrochloric acid argues against the existence of cancer. In the very early stage you may have present hydrochloric acid even in excess, proba-

bly due to the increased irritability at that time.

You may sometimes find in cases of carcinoma atypical cells in the washings, which cannot be said to be exactly pathognomonic; nevertheless, they are very significant and should stimulate further investigation.

Our hope is of recognizing malignant diseases of the stomach early and then with the help of the surgeon, attempt to save or prolong many lives in comparative comfort.

In ulcer, examination of stomach contents is useful in establishing a diagnosis, together with examinations of stools for occult blood. But thus far no single laboratory test has been sufficient, and until such infallible indication is discovered we must depend largely upon our interpretations of groups of symptoms and our willingness to resort, when necessary, to the exploratory incision.

I would also like to point out the importance of making more than one analysis in routine stomach work.

The following two cases which I recently had will demonstrate its importance:

Case No. 1. Test meal—Shredded wheat biscuit and water.

	1st analysis.	2d.	3d.
Free hydrochloric...	0	10	14
Comb. hydrochloric.	2	12	20
Organic acids.....	16	8	6
	—	—	—
Total acidity ....	18	30	40

Case No. 2.

	1st analysis.	2d.	3d.
Free hydrochloric...	0	15	35
Comb. hydrochloric.	0	10	30
Organic acids .....	25	10	5
	—	—	—
Total acidity ....	25	35	70

In case 2 it was of more importance for the reason that this patient really has a hyperchlorhydric tendency which one would look for in an individual of her kind. I will not take time to give a full history, but briefly it is this: A woman of nervous temperament—has had attacks about every two months for the past twenty years—of distress and pyrosis in the epigastrium, with constipation and tired feeling usually following overeating or exhaustion from any cause.

Had you made your conclusions from test meal No. 1 and prescribed hydrochloric acid and a diet accordingly, her conditions would surely have been aggravated. She was put on an ant-acid diet and an alkali when necessary, and general correction of hygiene with good results.

In case No. 1, a patient of an entirely different temperament, had hydrochloric acid been prescribed it probably would not have aggravated her symptoms, yet would have been at least useless. This was a gall-bladder case, but the patient came complaining of stomach trouble.

The stomach tube will quite often be as valuable in non-gastric cases as in genuine gastric disorders; for instance, a patient may consult you for a stomach disorder presenting a number of symptoms, and after examining at least three test meals you find nothing abnormal. You then are prompted to look further for the cause of the symptoms which may be of remote origin and might not have come under the ordinary physical examination. You may have to consider errors of refraction, diseases of the ear, nose and throat; neurasthenia and hysteria are very important. One must never forget about gastric crises of tabes, the vomiting with apoplexy, meningitis and brain tumor and gastric symptoms in epilepsy. Gastric symptoms are quite common in beginning

tuberculosis and the intoxication of infections often produces stomach symptoms. It may be a blood affair or kidney trouble, so a study of the blood and all the secretions and excretions must be made.

The contraindications for the use of the stomach tube are really very few, when carefully and properly done with a soft rubber tube. However, each case must be judged on its own merit, and one must exercise his good judgment and determine for himself where sounding cannot be performed without damaging the patient.

By these methods of diagnosis the dietetics and therapeutics of stomach diseases have been placed upon a more solid and scientific basis.

The satisfaction experienced in outlin-

ing a diet which you know will find a suitable reception and ultimate assimilation must be sufficient recompense for the time spent in studying the individual case.

In conclusion I would say that the stomach tube should be used, not alone in purely stomach cases, but in all chronic cases (unless contraindicated) as a routine measure along with examinations of blood, urine, and if indicated, sputum and stools; and although I consider the laboratory work in stomach cases invaluable and the most important, yet we could not dispense with the other data. We have none too many available methods. We are using none too many when all are used, and, as stated before, we must depend largely upon our interpretations of groups of symptoms.

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### EMPHYEMA\*

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R. Y. FERGUSON, M. D.,

Pontiac.

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Empyema as a complication of diseases of the chest probably dates back to the beginning of human ills, and unless our ancestors had greater resisting powers or a better means of combatting it, "empyema necessitatis" of the older writers must have been a common occurrence, and like appendiceal abscess, left to open when and where it could. Truly there must have been some fine old fistulae and pus-cavities in those days, closing only with the close of life.

Taken by itself empyema may not signify so very much, for almost any cavity of the body containing an accumulation of pus is an empyema. But modify

it by an empyema of the thoracic cavity or even of the antrum, and it becomes a condition of the greatest moment, both to the patient and the physician. Neglected, it is most likely to leave its victim a cripple, and handicapped physically for the remainder of his probably shortened life. One who might gladly surrender a rib at the proper moment, if he were sure of its being devoted to a more lofty purpose, would probably hesitate for a long time at the prospect of going through life with a caved-in thorax, the result of a neglected purulent pleurisy.

Empyema of the pleural cavity is in the majority of instances a complication or sequel of pleuro-pneumonia, and that is the class of cases to which I have spe-

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\*Read before the First Councilor District Meeting in Detroit, March 28, 1907.



cial reference. Such cases are exceedingly liable to be overlooked until the duration or urgency of the symptoms demands a closer inspection. Its early recognition is of the utmost importance, if we wish to attain success in the treatment. Great delay is sure to prove disastrous and make for a tedious and uncertain recovery. Every young child suffering an attack of pneumonia or in fact any disease of the chest should be carefully examined, keeping in mind the possibility of an effusion, and especially should this be so with the puny, sickly, underfed child. It is not sufficient simply to take the temperature and pulse, but careful inspection and percussion must be made, and every case presenting symptoms of cough, dyspnea, flatness on percussion, displaced heart-beat, with more or less prostration, should be viewed with suspicion, until all doubt has been removed by the use of the exploring needle. In almost all cases of effusion in children the fluid is purulent.

In adults the opportunities are greater for a more careful differential diagnosis and for excluding unresolved pneumonia, tuberculous deposits, etc. Probably the most important instrument of precision in the diagnosis of these conditions is a good sized needle attached to an aspirating syringe. It will nearly always answer definitely one way or the other. An affirmative answer at least is indisputable, and points plainly to the proper line of treatment.

Of the bacterial causes I have little to say, but being associated so frequently with pneumonia, one would naturally expect to find, and indeed such is the case, the pneumococcus as the most common exciting cause. Direct infection of the pleura from an existing pyemia, either adjacent to or remote from the cavity, necrotic ribs, or tuberculous deposits in the pleura itself, naturally give rise to a corresponding characteristic infection, namely, staphylococcus or that of the

tubercle bacillus.

In an established case the one great and important feature is the absolute necessity of early and radical treatment. An unrecognized or improperly treated empyema does certainly show a pitiful spectacle, both present and future, with a damaged lung, a crippled chest wall, and physical incapacity, all following a long and tedious sickness, especially in these days when a man sorely needs both lungs at their full capacity.

Differentiating an empyema from a pneumonia ought not to be difficult in a case where the chest contains almost enough pus, as one would think, to drown the patient, and this is the very kind, which, if left indefinitely to squeeze the life and elasticity out of a lung, proves so disastrous in its after effects. Small pockets leave small cavities, and if drained even late the chest wall has great power to accommodate itself to the situation. Sacculated empyema is found most frequently in the wake of chronic chest disease and offers a nice point in diagnosis.

Given a case in which the diagnosis is clearly established, either in child or adult what is the correct thing to do? One thing and that only—get the cavity opened thoroughly; any physician is, or should be, competent to do so. To my mind it requires a great deal more skill and common sense to lead the patient in the safe direction up to the point of operation than it does to complete the operation. Make the opening and the pus will soon make its way out, and if the opening be large enough and half decent care be given it afterwards the patient will recover with chest intact. In point of magnitude of pus collection, an empyema of the chest marks the limit, and it seems scarcely possible that the condition could go on until spontaneous rupture occurs, nevertheless such does sometimes happen. It is astonishing to see the happy change that will follow a

week's drainage; all the symptoms of discomfort disappear and nothing remains but the routine of caring for the discharge. Nothing could be more simple, especially when the results are so encouraging, than the laying bare of the pleura, incising it, and inserting drainage.

Aspiration is almost useless except as a diagnostic measure. Simple incision between the ribs finds less favor than formerly and will get you into all sorts of trouble with the drainage afterwards, and later on you may be compelled to complete the job.

The operation of choice, productive of the best results and giving the least subsequent trouble, is that of rib resection, preferably the sixth or seventh. All the precautions that are necessary, aside from cleanliness, are to avoid the artery, save the periosteum, and put in liberal drainage. The fluid should be allowed to make its escape rather slowly, until equilibrium of circulation and breathing is recovered. Two large drainage tubes, transfixed at the exit, and clipped off short, so that the dressing may not bend them over and so occlude them, should be inserted, directed in which ever way is easier, usually backward and downward. By having a large opening to commence with, shrinking will be allowed for and make the removal and replacing of the tubes sufficiently easy to avoid a daily fight with child or nervous adult. Somehow artificial exits for pus have a way of appearing larger when made than they do a day or two later, and drainage is seldom more than enough for the requirements. Just as soon as granulations form a channel the tubes may be removed.

Irrigation rarely has a place in the treatment, of acute cases at least, but in sacculated and chronic cases it may be of use. Recovery is said to sometimes come through absorption and undoubt-

edly does, but just how often we have no means of knowing. Possibly many cases of limited extent do so terminate. I have seen two such recover without operation, in which the diagnosis was made positive by use of the exploring needle. What effect the aspiration had I do not know, but probably not much, because so small a quantity was removed.

One case, seen in consultation a few weeks ago, occurred in a child of three years of age, in which uncertainty of diagnosis existed, (though according to the history there had been a preceding pneumonia), paracentesis was performed and we were able to withdraw a tablespoonful of pus through a small needle; as it seemed as if there must be much more present, a unanimous decision was given to resect part of a rib, in order to save the child's life. The verdict did not find favor, however, with the ruling element of the household, and we were obliged to desist, in spite of our forecasts of dire future calamity. This child was up and around in a few days and has made a complete recovery, notwithstanding our prognostications to the contrary.

Nothing has been said regarding the wholesale removal of ribs to remedy persistent cavities. That, I believe, more properly falls outside the line of work expected of the general practitioner. Suffice it to say that alertness and quickness of action on his part would make the Estlander's operation almost forgotten. The technic of the operation and the problems arising from drainage can be found more satisfactorily in text books, to which you are respectfully referred. The only excuse that I can offer for this paper is that of an earnest plea for early diagnosis and prompt action on the part of the general practitioner, when he comes face to face with empyema of the pleural cavity.



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JULY

### Editorial

**The Improvement of the Milk Supply.**  
—The purity of the milk supply is an economic question of vital importance. Milk is the one essential article of food for the artificially fed infant, for the young, growing child, for the adult during illness, and for the aged when the digestive functions become weakened. Although it is indispensable for more than half of the population, it is the daily observation of those most interested in this subject that there is no article of food with which everyone is so familiar and about which so little is generally known. This applies as much to the general profession as to the laity.

Fortunately, the present agitation for pure food is bringing attention to the milk supply of the country in a general way. It has attracted the interest and honest effort of certain members of the medical profession for a long time.

To Dr. Henry L. Coit, of Newark, N. J., is given the credit for the first organized effort to improve the milk supply of a city, the Essex County Milk Commission having been started in 1893. Since then similar organizations have been established all over the country.

As an evidence of present interest, the Medical Milk Commissions in the United States held an all-day session in Atlantic City, June 3, 1907. The object of this conference was to determine the scope of the Medical Milk Commissions, harmonize their working methods and requirements and establish uniform stand-

ards for "certified milk." Beside many prominent physicians, there were educators interested in this subject from several state agricultural colleges, health officers from the larger cities, and producers of pure milk, many of whom took an active part in the discussions. A permanent organization was formed and committees appointed to draw up uniform laws and standards.



**Certified Milk.**—Pure milk is a most valuable food. It contains in easily digestible form and in proper proportions, the nutritive substances required by the body. It is also one of the cheapest foods, since it contains more nutritive value than can be obtained at the same cost in any other food. In spite of its great value, many persons on account of their knowledge of the careless way that most milk is handled use as little of it as possible.

Milk differs from most foods in that this careless handling cannot be judged by its appearance. The detection of alteration and contamination is quite impossible in the kitchen. Skimmed milk may easily be mistaken for whole milk, and much more important, milk containing bacteria, dangerous from their numbers or variety, does not differ in appearance from the pure article.

When milk is once spoiled it can by no process known be made good milk. Pasteurization and sterilization are merely methods for its preservation, and their necessity proves a contamination which might have been avoided. By the use of modern scientific methods it is possible to very largely prevent this entrance of dirt, with the result that a milk may be produced which in its cleanliness differs widely from that ordinarily delivered, even by reputable dealers. To attain this end it is necessary that the dairy be put in a perfectly sanitary condition. The stable must be whitewashed and kept perfectly clean. The health of the cows must be assured, particularly with refer-



ence to tuberculosis. They must be kept carefully groomed and fed only on wholesome food and clean water. The milkers must be healthy. Before milking they must wash their hands carefully and put on a suit not used for other purposes. Since the first milk from each cow contains a certain number of bacteria, this must be rejected. The remaining milk is received in a milking pail through a small opening, to prevent, as far as possible, the entrance of dirt and dust. After milking it is at once removed from the stable to the dairy room, strained through cloth, cooled, bottled and scalded. By the use of such methods milk will contain the smallest possible number of bacteria. *Milk so produced, bottled, capped and sealed, when approved by a recognized milk commission, is what is known as "certified milk."*

The whole process may be summed up by the words cleanliness and cold. Such milk is of definite chemical composition, free from germs which cause disease, and from all others except in small numbers. No chemicals have been added to it either as preservatives or to give it color. As a food for infants and in the diet of invalids it should be considered an absolute necessity. The satisfaction to be derived from a knowledge of the purity, is its strong recommendation as a table milk.



**Milk Commission of the Wayne County Medical Society.**—The influence of the Medical Milk Commission has already extended beyond the immediate result of supplying a safe clinical milk. In several instances, it has aided the municipality in establishing and enforcing suitable laws controlling milk production. It has protected and encouraged milk producers in the supplying of clean milk. It has aroused the public to a fuller appreciation of the dangers of dirty milk, and the importance of de-

manding clean milk. The value of such work is now generally recognized.

The president of the Wayne County Medical Society has recently appointed a new medical milk commission. Let us hope that they receive the united support of the profession in accomplishing some of the needed reform in Detroit.

It should be the privilege of the physician to educate the public in this as in other lines of sanitary improvement.



**Many of the county societies are awakening** to the fact that they exist for some other purpose than the holding of quarterly or monthly meetings with the reading of papers. Following the suggestions of Dr. McCormack, meetings are being held with the druggists, with the dentists, with the ministers and with the laity. The members are beginning to realize what a vast amount of good can be accomplished by discussions on various health questions, to which are invited influential citizens.

The latest account of such a meeting which has come to our notice is the one held to discuss the milk supply, detailed under the report of Jackson county, in this issue. The meeting evidently "set some people a thinking" in Jackson, if one may judge from the column and a half report in *The Patriot*, of June 7th. Under "Current Comment," in the same issue, are two paragraphs which will bear quotation, because they demonstrate that the press takes an interest in these health questions—in this case, apparently a wholesome interest.

A professor of the University of Michigan presented facts and figures to prove an appalling slaughter of children by bad milk, and suggested means for its betterment. The medical members of the board of health did not attend, and Sanitary Inspector Sevine, who did, remarks that the doctors are stirring up a lot of things they know nothing about. It is quite apparent that someone needs some stirring up—but isn't it the board of health?

Sanitary Inspector Sevine is quoted as saying that he is so busy with looking after other duties that he cannot attend as closely as he wishes to the milkmen, and seldom has time to make an examination of milk. This is doubtless true. But when he goes on to say that the doctors are "stirring up a lot of things they know nothing about," it is pertinent to inquire in the face of the statement that he has no time to inform himself of the things of which the doctors complain, upon what he bases his information? Mr. Sevine accusing a professor of the University of Michigan, a leading Detroit practitioner, the most prominent physicians of the city, and Dairyman Probert, of ignorance, certainly cuts a funny figure.



Of interest to every county secretary is the following letter:

*To the State Secretary—*

I would like to know if there is on foot a movement to organize the secretaries of the county societies for purposes of mutual help. I notice they have such meetings in some other states and believe it would be a good thing for us. I know it would help me not only from hearing the experiences of others, but from the enthusiasm which should be aroused. I will support any such move if you think it feasible.

Very truly yours,

J. G. R. MANWARING,

Sec'y. Genesee Co. Medical Society.

The plan proposed by Doctor Manwaring is an excellent one, and if carried out, would undoubtedly be of great value to the county societies represented. It has been truly said: "As the county secretary, so the county society," for by glancing over our list of county organizations, one will readily realize that the strong, influential societies are those which are fortunate in having earnest, ambitious and efficient secretaries.

There appears elsewhere in this issue a reprint from the Pennsylvania official organ on the "Duties of the County Secretary," which should be read alike by all officers and members. Many of

the points here pointed out could be discussed before such a meeting and the discussions would be of great value. Meeting annually, either in the fall or at the time of the state meeting, the benefit to be derived is apparent. Steps will be taken to effect such an organization if assurances of co-operation from a sufficient number of counties be received. Let every county secretary respond.

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### Book Notices

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**A Treatise on the Practice of Medicine.** For Practitioners and Students. By Arthur R. Edwards, M. D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Northwestern University Medical School, Chicago. Octavo, 1328 pages, with 101 engravings and 19 plates. Cloth, \$5.50, net; leather, \$6.50, net. Lea Brothers & Co., Philadelphia, 1907.

A new text-book on the practice of medicine must stand comparison with such high-grade predecessors that it is a wonder to see the attempt made. It is therefore all the greater praise to commend Dr. Edwards' book and to say that it will find a place in American medical literature. It has too often been a fault of the one-volume texts on medicine that the subject of therapeutics has been given scant attention, but in this book the special claim is made—and justly so—that "an unusual amount of space has been devoted to treatment, to the detailed consideration of drugs and to numerous formulae and prescriptions ready for the student to use or improve upon." The author also has worked according to his belief that thorough system is indispensable, that pathology should be blended with the clinical features of disease, and that typical pictures should not be given too much weight. These are all good premises, and they are well carried out. The "system" or arrangement is rational and makes reference or consecutive reading very easy; headings and sub-headings are plainly indicated by bold-faced type, while numerals and letters facilitate rapid perusal.

An exceptionally good feature is the large number of schematic tables for differential diagnosis, which are very helpful to students. The author also dwells upon the symptoms produced by medication in any given disease, as well as the symptoms due to the disease itself. He is helpful to

beginners by emphasizing some one definite plan for therapeutics, given in detail, rather than describing many and recommending none. This does not mean that he fails to mention all recognized methods, for his therapeutic suggestions are quite complete. Surgical diseases are described from the standpoint of diagnosis, and operative treatment is given an unusually liberal recognition. The writer evidently believes in prompt surgical intervention, and takes no middle ground.

One might find reason for criticism in the perpetuated confusion of the chronic non-tubercular joint diseases; no classification is attempted and the treatment is not differentiated; yet the atrophic, hypertrophic, and infectious chronic arthritides require such widely different therapy that it seems as if a distinction ought to be made.

In general, the author's therapeutics evince a wise discrimination; he is sufficiently skeptical as to certain time-honored methods, and yet he is by no means a "therapeutic nihilist." He believes in salicylates as a practical specific for rheumatism, and he does not hesitate to recommend ovoferrin as the best hemoglobin reconstituent, but for the most part he advises the pharmacopeial preparations.

There are occasional illustrations, some of which are so poor as to be of little value. The index falls into the category of average indices; the good index is a great rarity, but is worth waiting for. The book is well made, and but few typographical errors are found.

Dr. Edwards has written a book that is distinctly good; it may be unqualifiedly recommended to all, as affording not only the necessary information, but as having a decided readability, because of its clear, brief, diction, and rational arrangement. We esteem it an addition to literature that may justly supplant many older and highly esteemed treatises on medicine.

must seek in monographs or a complete "system." DaCosta's work is an example of the best that can be done in one volume; it shows the imprint of a good teacher, a wise surgeon and a clear writer, and covers the ground, especially on some subjects. Much of the latest surgical work is embodied in this edition, and the changes necessitated by additions, elisions, alterations, and revisions, make quite a marked difference, when compared with the previous edition.

Bacteriology, asepsis, and antisepsis, and certain phases of pathology, receive renewed attention, and specific infections are carefully described, with very recent annotations. Classical operations are included such as ligation of arteries and amputations but the surgery peculiar to the eye, nose, ear, larynx, and female pelvis, is not considered. The modern orthopedist might question the limitation of his field implied in the section on orthopedic surgery, which completes the subject in eight pages, after describing wry-neck, finger deformities, knock knee, bowlegs, club foot, flat foot, and coxa vara! Hip disease, congenital luxation, Pott's disease, curvature, tuberculosis of joints, tendon transplantations, etc., are scattered through the book under general surgical headings. This is one among several peculiarities of arrangement, which are not conspicuously advantageous.

In matters of greater importance, however, diagnosis, treatment, and general surgical principles—the volume is unusually unimpeachable. Emphasis is placed wisely, there is no waste of words, and in important topics sufficient minutiae are included. Surgical technic is of course not described in detail.

The illustrations are numerous, especially of surgical instruments, and the common operations. There are a few colored plates. Altogether DaCosta's surgery is a reliable, sufficient book for the purposes for which it professes to be written.

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**Modern Surgery: General and Operative.**—By J. Chalmers DaCosta, M. D., Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College, Philadelphia. Fifth revised edition, enlarged and reset. Octavo volume of 1,283 pages, with 872 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$5.50 net; half morocco, \$7.00 net.

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**Diagnostics of Diseases of Children.**—By LeGrand Kerr, M. D., Professor of Diseases of Children at the Brooklyn Postgraduate Medical School. Octavo of 542 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$5.00 net; half morocco, \$6.50 net.

This book, the first of its kind limited to the diagnosis of diseases of children, is confined largely to a study of the objective symptoms.

The author has observed the orderly arrangement usually followed in making the routine examination in the sick room. Etiology and pathology are mentioned only when they are a direct

A one-volume treatise on Modern Surgery, general and operative, can now-a-days hardly serve for more than a guide, either to students or general practitioners. It can for the most part only mention details, the elaboration of which one



aid in diagnosis. Such subjects as vomiting, cough, cry, convulsions, are extensively discussed in a differential way.

Considering the limitation to diagnosis, the treatment of the subject might have been more thorough, more use might have been made of the various laboratory aids, and then the evident padding would not have been so necessary.

In going over the work, the reviewer finds no mention of such common subjects as parotitis and atelectasis.

The book work and illustrations are good.

Reviewed as a whole, this book contains very little not found in any one of several works on pediatrics that might be mentioned, usually owned by the general practitioner.

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**A Manual of Obstetrics.**—By A. F. A. King, A. M., M. D., LL. D., Professor of Obstetrics in the Medical Department of the George Washington University, Washington, D. C., and in the University of Vermont. Tenth edition; pp. 688. 300 illustrations and three colored plates. Philadelphia, Lea Brothers & Co., 1907.

The appearance of this, the tenth edition of King's Manual of Obstetrics, marks the beginning of its second quarter century, a fact in itself enough to bespeak its value. The reviewer knows no other American book upon obstetrics with such a record.

The general scope of the work is elementary combined with brevity and simplicity such that no student can misunderstand, indeed the reviewer has marveled at the clearness of many subjects presented and has enjoyed reading it.

The subjects upon Measurements of the Pelvis and Menstruation and Ovulation are unusually clearly and explicitly dealt with, too much not being given for the student as is usually the case.

The work, while primarily intended for the student, is of even greater value to the busy practitioner who will find here a concise and clear orientation of any subject in obstetrics he may wish to rapidly review.

It is indeed a pleasure to commend a work having the air of authority together with the dignity of age and yet possessing the freshness made possible by the inclusion of recent additions to obstetric science.

It is a most excellent manual.

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**Atlas and Epitome of Diseases of Children.**—By Dr. R. Hecker and Dr. J. Trumpp, of Munich. Edited, with additions, by Isaac A. Abt, M. D., Assistant Professor of the Diseases of Children in Rush Medical College, in affiliation with the

University of Chicago. With 48 colored plates, 147 black and white illustrations, and 453 pages of text. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$5.00 net.

This volume of Saunders' Hand Atlases compares very favorably with others in the series. The illustrations are numerous and instructive. The colored plates of the various skin affections are especially good.

The text is clear and concise and because of its German origin contains more of value than is usually found in a book of this sort.

For physicians desiring works of this kind, this atlas can be recommended.

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## County Society News

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### ANNUAL MEETING OF THE UPPER PENINSULA MEDICAL SOCIETY.

The Upper Peninsula Medical Society is made up of the members of the county societies of the Upper Peninsula of Michigan, and for the past few years its meetings have been looked forward to by the profession of the Upper Peninsula as an event of much importance.

The annual meeting will be held in the Spies Library, Menominee, July 16th.

Among the topics to be discussed will be the following:

"The Professional Secret and the Laws," Dr. C. L. Girard, Escanaba.

"A Survey of the Endemic and Epidemic Bowel Disturbances Prevailing in Escanaba," Dr. O. C. Breitenbach, Escanaba.

"Umbilical Hernia," Dr. Walter R. Hicks, Menominee.

"Hygienic Measures in Therapeutics," Dr. H. T. Carriel, Marquette.

"Preparation of Catgut," Dr. A. W. Hornbogen, Marquette.

"Haste and Delay in Certain Surgical Conditions," Dr. A. I. Lawbaugh, Calumet.

"The Treatment of Gonorrheal Infection of the Female Genital Tract," Dr. D. W. Ross, Manistique.

"The Feeding of the Typhoid Patient and Convalescent," Dr. T. J. Redelings, Marinette, Wisconsin.

The Fox River Valley Medical Society, of Wisconsin, which includes by courtesy the profession

of Menominee, holds its regular quarterly meeting July 16th, in Menominee. An invitation has been extended the members of the Upper Peninsula Medical Society, to participate in their meeting at which several interesting papers will be read and discussed. At the conclusion of the day's work of the two societies, the visiting members of the profession will be entertained at a banquet in the Stephenson Hotel, by the members of the Menominee and Marinette County Medical Societies. Other diversions have been arranged for, and altogether the 1907 meeting of the Upper Peninsula Medical Society promises to be one of its best.

The Journal extends to the members of this society an invitation to contribute all of the papers read at this meeting for publication in the September issue—this number to be known as the "Upper Peninsula Number."

The officers of the society are:

President, Dr. A. F. Snyder, Escanaba.

Vice-President, Dr. B. T. Philips, Menominee.

Secretary, Dr. R. A. Walker, Menominee.

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#### CALHOUN.

The second quarterly meeting of the Calhoun County Medical Society was held in Ceresco, June 11, 1907.

An unusually large attendance, a very interesting and instructive program, and a hearty repast furnished by President Gubbins, were the features of the meeting.

Dr. R. D. Sleight, of Battle Creek, gave an exceedingly practical talk upon "Common Eye Diseases." Dr. E. M. Chauncey, of Albion, gave an interesting paper upon "Enteroptosis."

An exceedingly spirited and interesting debate upon the advisability of the society, now a corporate body, retaining an attorney, resulted in a defeat for the affirmative.

The next meeting, September 3, will be held in Marshall.

The Post Graduate work outlined at the McCormack meeting closed for the summer, June 24th, with a splendid paper by Dr. Kellogg on the "Biliary Tract." Many new facts gleaned while abroad recently, being brought out. It was voted to organize permanently as the Battle Creek Medical Club for the purpose of continuing study next year. A constitution was adopted and Dr. Wilfrid Haughey elected president and Dr. Chas. E. Stewart, secretary-treasurer. A

membership fee of \$1.00 was arranged and prospects are good for a good permanent organization for regular work.

A. S. KIMBALL, Sec.

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#### JACKSON.

The regular quarterly meeting of the Jackson County Medical Society was held on the afternoon and evening of Thursday, June 6. Except for the regular business of the society, the entire time was given to a consideration of the milk problem;—at the afternoon session by the members and the nurses of the city, at the evening session by Dr. Rich, of Detroit, and Dr. Cowie, of Ann Arbor, before an audience consisting of mothers and fathers of infants, dairymen, city officials, and physicians. For the evening meeting special invitations were mailed to all the dairymen and all the city officials, and telephone invitations were given to parents by the physicians of the society. The meeting was a large one and every person present was much interested, as was shown by the general discussion which followed the presentation of papers. In fact the discussion has not stopped yet. Our committee on public health and legislation brought in a report recommending the appointment of a committee "to have charge of conducting a practical dairy inspection and securing by subscription funds for the maintenance of the same." In accordance with the report the public meeting appointed a committee consisting of two physicians, two laymen and one dairyman—the dairyman member to be appointed later by the dairymen's association.

The following papers were given:

"A Clean Milk Supply and How to Obtain It," Dr. H. D. Hodge.

"Practical Methods of Milk Modification," Dr. A. J. Roberts.

"Infant Mortality," Dr. Herbert M. Rich.

"A Consideration of a City's Milk Supply," Dr. D. M. Cowie.

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At a joint meeting of the Jackson Bar Association and the physicians of the Post-graduate Course, under the auspices of the Jackson County Medical Society, Hon. Eugene Pringle, of Jack-

son, gave a valuable discussion of the subject, "Expert Testimony." By request of the physicians present Mr. Pringle gives us the following outline of the discussion.

T. S. LANGFORD, Sec.

When medical expert testimony is given, the witness should in the first instance and before expressing an opinion, state the facts and reasons upon which his opinion will be based.

The medical witness should in addition to stating his own qualifications as an expert, state his view of the condition of the science involved, and should discriminate between facts shown by positive proof and those known only by inference, and he should make it appear whether what he states was learned from books or from his personal observation.

The cross examiner should avoid any expressions impeaching the good faith of the medical witness, but should be at liberty to test thoroughly the connections of any facts or opinions stated, the examiner taking the risk of hearing more abundant reasons for sustaining the expressed opinion.

In insanity cases, the medical witness should remember that the question before the court or jury is not when mental aberration has begun, but when responsibility ends, and so far as able state the condition when irresponsibility begins.

No medical witness should allow himself to testify from hasty impressions merely or without having had time and opportunity to refresh his knowledge from books and to recall recollections from his own experience.

Expert witnesses should never become partisans and should maintain so far as possible, a judicial frame of mind, willing to consider, and in fact considering all the reasons pro and con affecting the opinions they express. The idea supposed to justify what lawyers do in the trial of cases that the truth is struck out by the opposing arguments of counsel, should not be applied to justify the contentions or partisanship of experts.

There should be well digested laws by which a court may order a reasonable compensation to expert witnesses, not only during the time they attend court but for the time spent in preparing to testify in each particular case, and it should perhaps be a misdemeanor to contract for other compensation than the allowance by the court.

#### MUSKEGON-OCEANA.

Regular meeting of the Muskegon-Oceana Counties Medical Society was held at the office of Dr. Chas. F. Smith, at Whitehall, Mich., evening of June 7, 1907.

There were fourteen members present, ten from Muskegon, viz.: Drs. Garber, Hartman, Denslow, Ellison, Marshall, Oosting, Olson, Sullivan, Cramer and Chapman; two from Shelby, Oceana county, viz.: Drs. Griffin and Buskirk; Whitehall members, Drs. Keyes and Smith. All of the visiting members made the journey via automobile.

After a very interesting meeting at which we listened to a very able and elaborate report made by our delegate, and a paper on "Infections of the Extremities," by Dr. Ellison, the society adjourned to Doctor Smith's residence and sat down to a splendidly good night lunch.

It is the custom of our society to occasionally hold our meetings at the different towns throughout our territory. We believe it a good custom. We always have a good time and it greatly promotes good fellowship.

At a recent meeting when Doctor Garber entertained the society, he read a paper on the subject, "The Passing of Therapeutic Nihilism," which proved very interesting and provoked much discussion.

V. A. CHAPMAN, Sec'y.

#### OTTAWA.

The June meeting of the Ottawa County Medical Society was held at Coopersville, June 11, 1907, several papers being read on tuberculosis. Doctor Fuller, of Grand Rapids, was the guest of honor and opened the discussion.

At the close of the program a committee was appointed consisting of Drs. J. J. Mersen, of Holland; H. J. Poppen, of Forest Grove, and E. D. Kremers, of Holland; with power to appoint three laymen to meet and organize an Anti-tuberculosis Society for Ottawa County. We hope to accomplish some degree of good.

Our August meeting will be a picnic.

E. D. KREMERS, Sec'y.



## INJURY OF LEG. MALPRACTICE SUIT FOLLOWING.

ALBERT W. ADAMS, M. D.

Bellevue.

R. N. was born January 10, 1898. There was nothing peculiar about the child, except that she was small and delicate. The father and mother were in fair health. The maternal grandfather had arteriosclerosis and diabetes mellitus; the maternal grandmother is a large woman with goiter, subject to headache, and was formerly hysterical; the paternal grandfather, seemingly a healthy man, has a very peculiar gait, and the appearance of syphilis in earlier days; the paternal grandmother died soon after the father was born, the cause not being known.

The child was always delicate, looked like a wax doll, and never had much vitality, although there is no history of any severe illness. She had a light attack of scarlet fever when a little over two years old, and whooping cough at about six, which was also in a light form.

About June 3rd, 1905, she was brought to me by the father, who said "she limped and they thought it was a habit, and whipped her for it"; he "wanted me to find out what was the matter if anything." (This was a very fortunate circumstance for it prepared me for what was to follow.) I stripped the child, and could at once see that the left leg was shorter and smaller than the other. The foot was also shorter and smaller, the muscles soft and flaccid, the ankle weak, the ligaments lax, the foot abducted and everted, and she walked upon the inner side of the foot. In short she had talipes valgus and beginning equinus.

I raised the foot by putting thin books under it, until the pelvis was brought to a level, and found that it took one and one-half inches. I also measured by tape from the anterior superior spine of the ilium to the malleolus, and proved the previous measurement—that the leg was one and one-half inches shorter than the other. By measurement the thigh was more than an inch and the leg an inch smaller than the opposite one. The patellar reflex was diminished. I diagnosed a former anterior poliomyelitis and its results—paralysis, atrophy and retardation of growth of the left limb. I ordered rubbing, spitting, bathing and an extension shoe with side

supports to the leg.

In about six weeks I met the father on the street. He said he was too poor to send to an instrument maker for a shoe, and was going to have the local shoemaker make one, which he did, but without the side supports.

I did not see the child from the first examination until she was hurt September 24, 1905. Upon the evening of this date I received word to come to the house, as "they thought Rhea had broken her crippled leg." That I might be fully diligent and get there at once, I ordered my man to go to the office, get my plaster-of-paris dressings, and bring them, and I went on my wheel.

They could give no history, only "she sat in the swing the last they saw her, and all at once she was on the ground, back of the swing, crying." Besides the extension shoe, which I now saw for the first time, she had on a heavy "magnetic" legging of the Thatcher Magnetic Co., which her grandmother "was agent for," and which she had put on the leg about six weeks before. I took off the shoe and the legging, and the stocking, and took the foot by the heel, and examined it.

The little one was much frightened, but I obtained her confidence enough so that she sat upon the bed, showed me where the pain was, putting her hand under the muscles of the calf of the leg which was swollen. At the time she could not tell how she was hurt, but a year and a half later she had a very nice little story to tell, on the witness stand of how "she hurt it by stepping on an apple."

There was no way I could get her to move the foot, but no doubt, with the fright, trauma, and former paralysis, there was loss of function. I knew the family history was not good. I knew of the paralysis, and that the bones of this leg were small, atrophied, probably friable, and would easily fracture. I could get no history of the injury. I could not ascertain whether there was complete loss of function or not. I examined for Pott's fracture, which I expected to find as the ankle had been weak, and the foot set upon this extension shoe, without side supports, but could find no fracture at the ankle or of the leg above,

There was no more deformity than there had been three months before; there was no abnormal mobility, and no crepitus. I went back early the next morning and found the child quiet, but the limb more swollen, and made examination for fracture of the deep portion of the fibula, finding nothing more than on the preceding night—a strain of the poor, weak, fibro-fatty, somewhat contracted muscles of the calf. I told the mother who was alone with the child, that the leg was not broken. I felt that I must take more than ordinary care, so I went back the sixth day, after the swelling was gone. I found on it the magnetic legging, which I had taken off the first day and ordered left off. The grandmother said they had put it on Tuesday morning (thirty-six hours after the injury.) Had there been a fracture this handling, even in inexperienced hands, would have shown it. The mother removed the legging, and I made a thorough examination, but could find no fracture. The mother put back the legging while I was there and told me that "if the bone was not broken they would treat the leg with this legging." This was virtually discharging me and I so took it.

On the stand the parents swore that they "stopped me when passing on the thirty-fifth day after the injury, and I made a thorough examination of the leg, and could find no fracture; that they took off the legging, I made a digital examination, and had her walk across the floor and back to me." They told me and also another physician, that it was after this that the leg began to grow crooked, but grew the most so while in the hands of Dr. A, of Parma, where she went about December 1st to have the limb massaged and treated with electricity.

Dr. A. took Rhea to Ann Arbor to be examined, January 6, 1906. When she returned to Bellevue that evening, I stopped without call and was informed that in Ann Arbor the leg had been examined by the X-ray, and they had found a fracture which they thought was there when I examined the leg nearly four months before; and that Dr. S was going to refracture and straighten the leg.

I asked to examine the leg, and the father removed a full fracture dressing from knee to foot, with two paste-board side splints. The leg was crooked, and it seemed to me that I could find

some callus. Dr. A— afterwards said that he "put on the splints to strengthen the leg, and keep the toes of the opposite foot from digging into that leg. That when he took her to Parma for treatment she walked, but limped badly, and he did not make out there had been any fracture." This was in December.

I advised against refracturing, but asked the privilege of being present if this was done, which I was promised. The next day I was refused an examination of the leg, and was afterward informed by the father that Dr. W— had been there that morning, and had told him "he had a good case for malpractice, and he would like to be a witness in it." Three days later Dr. W— went to Charlotte, "to apprise Mr. H, attorney, of the condition of the leg, and to lay the foundation of a suit of malpractice." Two days later I received a letter from Mr. H. "to appear and settle."

January 27, 1906, Drs. N. & P., of Charlotte, took a skiagraph of the leg and examined the same, finding it shorter and smaller than the other. This skiagraph does not show complete ossification of the callus, indicating very recent fracture.

Dr. S. broke the bones of this leg February 6, and February 13, 1906, and put the leg in plaster dressings. On June 19, Dr. K., of Jackson, took off the dressings, and took two skiagraphs. "The leg would bend around in all directions." June 19, Dr. S. cut down, excised the ends of the bones and sutured them together, but when the dressings were removed by Dr. W. on November 29, there was no union.

Suit was brought for malpractice, and came up for trial at the January term, at Charlotte. The plaintiff claimed that the child "being then and there in good health, on Septemehr 24, 1905, fractured her leg: that the defendant did not set the plaintiff's broken leg, and did not treat the patient in a skilful manner." "By reason of the premises it became necessary to refracture the leg, so falsely joined," and "the plaintiff suffers great pain, and the general health of the plaintiff is now and ever will be impaired, weakened and ruined."

This was plainly attempted substitution of origin. Verdict was given for the defendant. For report of the trial see the records of the Eaton County Court for January, 1907, term.

PROCEEDINGS OF THE FORTY-SECOND ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY, HELD AT SAGINAW, MAY 15 AND 16, 1907.

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Minutes of the Proceedings of the Council.

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The Council of the Michigan State Medical Society was called to order by Chairman Burr, at 2:00 p. m., Tuesday, May 14, 1907, at the Bancroft House.

Present: Chairman Burr, Councilors Dock, Bulson, Willson, Small, Spencer, Felch, Haughey, President Stockwell and Secretary Schenck.

The minutes of the January meeting were read and approved.

The secretary reported copy of resolutions to be presented to Doctor Herdman's family ready for signatures of committee. In compliance with instructions of January meeting, he had written to Barry County requesting them to correspond with the Councilor of their district in regard to their affiliation, and received no reply. A letter from Dr. Dodge expressing his regrets at being unable to attend this meeting because of the necessity of his going to California was read.

By Dr. Spencer: Moved that the report be accepted and adopted. Supported by Dr. Small. Carried.

Dr. Burr, Chairman of the Council, read the report of the Council to the House of Delegates, which was adopted in sections, many sections receiving thorough discussion. (See page 366.)

Dr. Schenck, State Secretary, presented a communication to the Council with reference to recommending Dr. Samuel Catlin, of Tecumseh, for honorary membership. The matter was referred to Dr. Dock, Councilor of the First District.

Council then adjourned until 4 p. m., May 15th.

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The second session of the Council was called to order by Chairman Burr, at 4 p. m., May 15th, and Council was joined by Councilors Baker and McMullen.

Minutes of the previous session were read and approved. In the absence of Secretary Schenck, Dr. Haughey presented a communication from the House of Delegates to the effect that a vote of thanks was tendered the Council for the good work it had done during the year.

By Dr. Dock: That Dr. Samuel Catlin, of Tecumseh, be proposed for honorary membership.

Supported by Dr. Willson and carried.

By Dr. Bulson: That the Secretary of the State Society be authorized to procure proper safety deposit vaults or otherwise properly care for the records of the society. Supported by Dr. Willson. Carried.

By Dr. Rockwell: That the name of Dr. Mary L. Towsley, of Kalamazoo, be proposed for honorary membership. Supported by Dr. Haughey. Carried.

Dr. Dock called to the chair.

By Dr. Burr: Resolved, That it be declared as the sense of the Council that any provision, or change, in the by-laws of a County Society which contemplates the admission to membership of physicians who have practiced sectarian medicine, unless there is renunciation of former allegiance to pathy or sect, is in conflict with Section 5, of Chapter XIII. of the by-laws of the Michigan State Medical Society, and would subject such county to the penalty of forfeit of charter.

Supported by Dr. Rockwell. Carried unanimously.

Dr. Burr resumed the chair.

By Dr. Willson: Moved that the chairman appoint a committee consisting of Drs. Haughey, Dock and Bulson to pass on the acceptance of curios by the State Society. Supported by Dr. McMullen. Carried.

By Dr. Willson: Three counties in the state have failed to send in any dues, Alpena, Cheboygan and Charlevoix. It seems to be a matter for the Council to decide what shall be done.

The Councilors of the Ninth and Tenth Districts, who have jurisdiction over these counties, explained the difficulties and hoped soon to have them in line.

Some discussion was had in regard to matters in the Fourth District, but no action was taken.

The Council then adjourned until 3 p. m., May 16th.

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The last session of the Council was called to order by Chairman Burr at 3 p. m., May 16th.



The minutes of the previous session were read and approved.

Chairman Burr introduced Dr. Herman Ostrander, of Kalamazoo, the President Elect, and Dr. A. L. Seeley, of Mayville, who succeeds Dr. S. I. Small as Councilor for District No. 8.

Secretary Schenck presented a bill from the Committee on Contract Practice amounting to \$13.89.

By Dr. Rockwell: Moved that the bill be allowed. Supported by Dr. Spencer. Carried.

By Dr. Schenck: The action taken in General Session this morning places the State Society in support of the L'Esperance bill. It seems that a plan of sending out about five hundred letters to legislators who are considered doubtful would do some immediate good.

By Dr. Haughey: Moved that the recommendation be adopted. Supported by Dr. Spencer and carried.

By Dr. Bulson: Moved that Dr. Burr be elected chairman for the ensuing year and that the Secretary cast the unanimous ballot of the Council for him.

Dr. Dock supported the motion. Carried.

Secretary cast the unanimous ballot of the Council for Dr. Burr for chairman for the ensuing year, and declared him elected.

By Dr. McMullen: Moved that the present secretary be declared a nominee for the ensuing year and that the chairman cast the unanimous ballot of the Council for his re-election.

Supported by Dr. Bulson. Carried.

Chairman cast the unanimous ballot of the Council for Dr. Haughey for Secretary for the ensuing year, and declared him elected.

By Dr. Bulson: Moved that the secretary's compensation be the same as last year. Supported by Dr. Rockwell. Carried.

Dr. Rockwell: Moved that the stenographer's compensation be the same as last year. Supported by Dr. Bulson and carried.

Chairman appointed the following committees:

#### Committee on Finance—

W. T. Dodge, Big Rapids.

B. H. McMullen, Cadillac.

A. L. Seeley, Mayville.

#### Committee on County Societies—

W. H. Haughey, Battle Creek.

A. E. Bulson, Jackson.

A. H. Rockwell, Kalamazoo.

E. J. Ennis, Sault Ste. Marie.

#### Committee on Publication—

Geo. Dock, Ann Arbor.

Chas. H. Baker, Bay City.

Mortimer Willson, Port Huron.

R. H. Spencer, Grand Rapids.

Chairman expressed the regret of the Council in parting with Drs. Felch and Small, with whom it had been associated so long that it seems like the breaking up of family ties.

Dr. Rockwell was called to the chair.

Dr. Burr moved, that the Secretary of the Council be requested to obtain from each county medical society in the state a copy of its constitution and by-laws, so that the Council may know definitely the position of each county society, and, if possible, obtain a copy of the constitution and by-laws of every state medical society in the Union, and have them filed as part of the property of the society.

Dr. Bulson supported the motion. Carried.

Dr. Burr resumed the chair.

Council adjourned to meet in January, time and place of meeting to be fixed later.

(Signed.)

W. H. HAUGHEY,

Secretary of Council.

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### Minutes of the Proceedings of the House of Delegates.

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1. The House of Delegates was called to order by President Stockwell at 8:30 p. m. Tuesday, May 14, 1907, at the Masonic Temple, Saginaw.

2. A majority of the delegates being present, the roll call was dispensed with, and the meeting declared open for the transaction of business.

3. The report of the Council was read by Dr. C. B. Burr, Genesee, chairman. (See page 366.)

By Dr. A. P. Biddle, Wayne: That the report be referred to the Business Committee, to be later appointed.

Supported by Dr. J. A. Wessinger, Washtenaw. Carried.

4. Report of Committee on Legislation and Public Policy, W. H. Sawyer, Hillsdale, chairman, was read by Dr. Inches, St. Clair, as Dr. Sawyer was unable to be present on account of illness. (See page 369.)

By Dr. H. W. Yates, Wayne: That before this

report is accepted the committee be given a little more time and that they report again before the annual meeting closes some method by which their plans can be carried out, to the end that assistance may be given the committee and anything that comes from the profession will come from the united profession and not merely from the committee.

Supported by Dr. A. P. Biddle, Wayne. Carried.

5. Report of National Legislative Council, American Medical Association, by Dr. Flemming Carrow, Michigan member. (See page 371.)

By Dr. F. W. Robbins, Wayne: That the report be referred to the Business Committee.

Supported by Dr. J. A. Wessinger, Washtenaw. Carried.

6. Report of Committee to Encourage Systematic Examination of the Eyes and Ears of School Children Throughout the State, by Walter R. Parker, Wayne, chairman. (See page 372.)

By Dr. A. P. Biddle, Wayne: That the report be accepted and the committee be continued as appointed by the president. Supported and carried.

The following members were nominated by acclamation to serve on the Committee on Nominations: F. W. Robbins, Wayne; A. P. Biddle, Wayne; A. W. Hornbogen, Marquette; E. L. Heysett, Osceola; W. E. Coates, Manistee; F. E. Ruggles, Bay; F. J. Groner, Kent.

As there were two members from Wayne, Dr. Robbins withdrew his name.

By Dr. W. H. Haughey, Calhoun: That rules be suspended and the first five nominated be declared members of the Committee on Nominations. Supported and carried.

President appointed the following as members of the Business Committee: F. W. Robbins, Wayne; C. S. Cope, Ionia; R. E. Balch, Kalamazoo; E. J. C. Ellis, Benzie; D. K. Black, Montcalm.

House of Delegates adjourned to meet again Wednesday, May 15, at 9:00 a. m.

### Second Session.

The second session of the House of Delegates was called to order by President Stockwell at 9:00 a. m. Wednesday, May 15, 1907.

1. The minutes of the previous session were read and approved.

2. Dr. Biddle requested the secretary to read

the amendment to the constitution which was proposed at the Jackson meeting.

Secretary read the following amendment to Art. 8, Sec. 2: "The Councilors shall be elected for terms of six years each, these terms being so divided that four Councilors shall be chosen each alternate year."

By Dr. A. P. Biddle, Wayne: That the amendment to the constitution as proposed be adopted. Supported by Dr. Robbins, Wayne. Carried.

By Dr. A. P. Biddle, Wayne: That the president of the society extend to the Council the sincere thanks and appreciation of the House of Delegates for the work of the Council during the year.

Supported by Dr. Wessinger, Washtenaw. Carried.

Report of Business Committee, F. W. Robbins, Wayne, chairman.

The Business Committee recommend that Cass County be transferred from the third to the fourth councilor district and that Branch County be transferred from the second to the third councilor district.

By Dr. J. A. Wessinger, Washtenaw: That the recommendation be adopted. Supported by Dr. Biddle. Carried.

The committee recommend that each county society elect at its annual meeting one of its members to serve on the Committee on Legislation and Public Policy.

By Dr. J. A. Wessinger, Washtenaw: That the recommendation be adopted. Supported by Dr. Biddle. Carried.

The committee recommend that each county society that has not already done so shall elect a board of censors to whom is to be referred all matters pertaining to the ethics, discipline and morals of its members.

By Dr. A. P. Biddle, Wayne: That the recommendation be adopted. Supported and carried.

In the Council's Report to the House of Delegates the policy of the Journal in regard to the advertising pages is outlined as follows:

Advertisements of remedies expressly disapproved by the Council of Pharmacy shall not be admitted.

The Journal does not stand sponsor for advertisements in its pages or necessarily approve of those published.

Reading notices of advertisements shall not be admitted after contracts in existence have expired.

The Journal invites professional criticism as to specific advertisements.

As to questionable advertisements, the Secretary-Editor is instructed to exclude them, acting on his own judgment or in consultation with the Publication Committee.

The Business Committee report favorably on this recommendation.

By Dr. J. A. Wessinger, Washtenaw: That the recommendation be adopted. Supported by Dr. E. C. Taylor, Jackson. Carried.

Committee recommend that Dr. Jas. C. Willson, of Flint, be made honorary member of this society and that the sympathy of this society be extended to him in this hour of his recent bereavement and present loneliness.

By Dr. A. P. Biddle, Wayne: That the recommendation be adopted. Supported by Dr. E. C. Taylor, Jackson. Carried.

By Dr. E. C. Taylor: That the report be adopted as a whole. Supported by Dr. Biddle. Carried.

3. Report of the Committee on the Study and Prevention of Tuberculosis was given by Dr. W. E. Coates, Manistee, chairman. (See page 373.)

By Dr. C. H. McKain, Kalamazoo: That the report be accepted and adopted. Supported by Dr. Biddle. Carried.

By Dr. A. P. Biddle, Wayne: That the Committee be continued. Supported and carried.

4. Report of Committee on the Patent Medicine Evil was read by Dr. G. A. Hafford, Calhoun, chairman. (See page 375.)

By Dr. J. A. Wessinger, Washtenaw: That the report of committee be accepted and adopted and committee continued. Supported and carried.

5. Miscellaneous business.

Dr. J. W. Inches, St. Clair, in behalf of the Committee on Legislation and Public Policy, and according to instructions given at the preceding session of the House of Delegates, presented an amendment to the by-laws making it necessary that proposed medical legislation shall be passed on by the Council of the Michigan State Medical Society, before an endeavor is made to introduce it to the legislature at Lansing. (See 3 of minutes of May 16.)

By Dr. W. F. Breakey, Washtenaw: That the report of the committee be adopted. Supported by Dr. E. B. Miner, Grand Traverse. Carried.

Dr. A. P. Biddle, Wayne: Moved an amendment to the by-laws, Chap. IX., Sec. 1, so that

an additional permanent Committee on Education shall be established, and that said by-law shall also include that the committee shall consist of three members, one appointed for one year, one for two years, and one for three years, which committee shall elect a delegate from among its members to the General Committee on Medical Education of the American Medical Association. (See 3 of minutes of May 16.)

6. Dr. A. B. Biddle, chairman of Committee on Nominations, stated that invitations had been received from Kalamazoo and from Manistee, both cities desiring to entertain the State Society in 1908, and wished an expression by the delegates from each place as to their facilities for entertaining the society. Responded to by Dr. King, of Manistee, and Dr. Balch, Kalamazoo.

House of Delegates adjourned until 8 a. m., May 16th.

### Third Session.

The third session of the House of Delegates was called to order by President Stockwell, Thursday, May 16, at 8:00 a. m.

1. The minutes of the last session were read and approved.

2. Dr. A. P. Biddle, Wayne, chairman of Committee on Nominations, made the following report:

The Committee on Nominations respectfully report as follows:

For First Vice-President, Walter R. Parker, Detroit.

For Second Vice-President, E. E. Curtis, Saginaw.

For Third Vice-President, H. J. Kinne, Frankfort.

For Fourth Vice-President, H. L. Bower, Greenville.

Councilor for 2nd District, A. E. Bulson, Jackson.

Councilor for 8th District, A. L. Seeley, Mayville.

Councilor for 9th District, B. H. McMullen, Cadillac.

Councilor for 12th District, C. J. Ennis, Sault Ste. Marie.

Councilor for 1st District (unexpired term), George Dock, Ann Arbor.

Representatives in House of Delegates, A. M. A., for two years, H. O. Walker, Detroit, and Reuben Peterson, Ann Arbor.



Alternates, D. K. Black, Greenville, and C. H. Johnson, Grand Rapids.

Place of meeting for 1908—Manistee. Time to be left to the discretion of the President, Chairman of the Council, and the Secretary of the Society.

By Dr. W. H. Haughey, Calhoun: That the report of the Committee on Nominations be accepted and recommendations adopted.

Supported by Dr. G. W. Jones, Lapeer, and carried.

3. Dr. A. P. Biddle asked the Secretary to read the amendments to the by-laws on which the House of Delegates should act.

Secretary read the following amendments:

To amend Chapter IX., Section 1, of the by-laws, by adding to the list of standing committees a Committee on Medical Education, also to add a new section to the same chapter, Chapter IX., Section 6: The Committee on Medical Education shall consist of three members, one to be appointed for one year, one for two years, and one for three years, thereafter one member to be appointed each year; said committee shall select one of its own members as a delegate to the yearly conference on Medical Education of the American Medical Association.

By Dr. A. P. Biddle, Wayne: That the amendment be adopted. Supported and carried.

Amendment introduced by Dr. J. W. Inches, St. Clair, to add the following paragraphs to Section 3 of Chapter 9, of the by-laws, as follows:

No bill or proposed law or amendment thereto shall be introduced in the state legislature or sent to any member thereof in the name of this society or by any of its committees until such proposed legislation shall have been endorsed and approved by the Council of this society in regular session.

After any proposed legislation shall have been endorsed by the Council it shall be referred to the Committee on Legislation and Public Policy, which shall thereupon have it presented for passage at Lansing, and take such steps as may be deemed necessary to secure for it the united endorsement of the medical profession throughout the state, and to that end it shall be the duty of the secretary of this society under the direction of the Committee on Legislation and Public Policy, to have printed and issued to the various county societies or to each member thereof as the case may require, circular letters and letters of endorsement to be addressed by physicians to their representatives at Lansing, asking for the

support and passage of the legislation so approved.

By Dr. A. P. Biddle, Wayne: That the amendment be adopted. Supported and carried.

4. Chairman called for report of Committee on Vital Statistics, H. B. Baker, Ingham, Chairman.

Because of absence of Chairman report was not given.

5. Chairman called for report of Committee on Venereal Prophylaxis, A. E. Carrier, Detroit, Chairman. Because of the absence of Chairman report was not given.

By Dr. A. P. Biddle, Wayne: Moved that in the absence of the chairmen of these committees, the committees be continued. Supported by Dr. G. W. Jones, Lapeer. Carried.

6. Dr. Geo. C. Hafford, Calhoun, stated that Dr. E. T. Abrams had prepared a substitute for the bill regarding patent medicines which is now in the hands of the Committee on Public Health of the Legislature, and moved that the Council be requested to look up the status of that substitute bill and see whether they approve of it before it is allowed to come before the Legislature.

Motion failed of support.

By Dr. E. C. Taylor, Jackson: Moved that the Chairman of the Council confer with Dr. Abrams with reference to this substitute bill.

Supported by Dr. Wessinger, Washtenaw.

Dr. W. H. Haughey, Calhoun: Inasmuch as this legislation is under way and this present amendment looks toward referring future legislation to the Council, I believe it would be far better to refer only future legislation to the Council and let that which has been instituted take its regular course. If legislation has already been started it would delay it to bring it before the Council.

Motion put to vote and lost.

Dr. Geo. C. Hafford, Calhoun, brought up the subject of reputable physicians, members of this Society, who allow traveling opticians to occupy their offices a few days a week, and who, instead of referring their work to reputable oculists refer it to this class of people. He suggested that a good, strong resolution might have some good effect.

No action taken.

Dr. Jas. A. Wessinger, Washtenaw, presented the following resolution and moved its adoption:

Resolved, That it is the sense of the House of

Delegates of this Society that the Committee on Legislation and Public Policy be instructed to ask our State Legislature for an appropriation of five hundred dollars, said money to be placed at the disposal of the Committee of the Michigan State Medical Society appointed to encourage the systematic examination of the eyes and ears of school children throughout the state.

Supported by Dr. A. P. Biddle, Wayne. Carried.

House of Delegates then adjourned.

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### Special Meeting, House of Delegates.

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A special meeting of the House of Delegates was called to order by President Stockwell immediately before the general meeting, Thursday, May 16, 1907.

Dr. C. B. Burr, Genesee, Chairman of the Council, presented a recommendation from the Council that Dr. Samuel Catlin, of Tecumseh, be made an honorary member of the society.

By Dr. W. H. Haughey, Calhoun: That the recommendation be adopted. Supported and carried.

By Dr. Burr: The Council also recommend that Dr. Mary L. Towsley, of Kalamazoo, be made an honorary member to the State Society.

By Dr. Haughey, Calhoun: That the recommendation be adopted. Supported and carried.

Special meeting adjourned, and the House of Delegates adjourned *sine die*.

(Signed) B. R. SCHENCK,

Secretary Michigan State Medical Society.

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### Minutes of the Proceedings of the Society in General Session.

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The Forty-second Annual Meeting of the Michigan State Medical Society was called to order by President C. B. Stockwell, Port Huron, at 10:30 a. m., May 15, at Masonic Temple, Saginaw.

Prayer was offered by Rev. Luther E. Lovejoy, Saginaw.

Hon. W. B. Baum, mayor of Saginaw, extended a cordial welcome to the society in the name of the City of Saginaw.

Dr. E. E. Curtis, president of the Saginaw County Medical Society, gave an address of welcome on behalf of the medical profession.

Dr. C. B. Stockwell, Port Huron, read the

president's address, subject: "The Uplands in Medicine." (See June issue of JOURNAL.)

Dr. L. J. Hirschman, Detroit, presented the following resolution:

Whereas, Certain interests in the State, inimical to State regulation of colleges and the higher requirements of medical education, established by the State Medical Board under the present Medical Acts, which have resulted in raising the Michigan license from almost the lowest qualification to the state of being at least as high as any qualification in the United States, and which, in consequence, allows for reciprocity with some thirty states are endeavoring to render non-effective these standards through amendments to the L'Esperance Bill now before the Legislature, which bill has for its object a more efficient administration of the provisions regarding standards contained in the present Medical Acts; and

Whereas, If these opponents of proper standards are successful the result, without question, will be the re-establishment of Michigan as a "dumping ground" for all kinds and degrees of quacks and low standard practitioners, with injury to the people as a direct result; and

Whereas, It will affect adversely Michigan licentiates through the revocation of all reciprocity agreements with other states; be it

Resolved, That the Michigan State Medical Society, having an active membership of over two thousand registered medical men of the State, and an affiliated membership of fifty-five County Medical Societies, and representing the opinion of fully eighty per cent. of practicing physicians, unqualifiedly approves and endorses the amendments to the present Medical Acts as represented by the L'Esperance Bill (House Bill No. 20).

Resolved, That a copy of these resolutions be sent to the Governor, the Lieutenant-Governor, and the members of the Senate and the House of Representatives.

By Dr. C. S. Oakman, Detroit: That these resolutions be referred to the Business Committee of the House of Delegates. Supported and carried.

Dr. Leartus Connor, Detroit, stated that Dr. Howard Kelly, of Johns Hopkins University, was engaged in the preparation of a list of the worthy physicians of America, which was intended for publication. Dr. Connor had been asked to furnish a list of the deceased members of the Michigan profession who were worthy of recognition and desired the assistance of the medical profession throughout the State.



## 8. Nominations for president:

Dr. Flemming Carrow, Detroit, nominated Dr. Sidney I. Small, Saginaw.

Dr. Lacrone, Kalamazoo, nominated Dr. Herman Ostrander, Kalamazoo.

Both nominations received hearty support from several members.

By Dr. F. W. Robbins: That nominations for president be closed. Supported and carried.

Meeting adjourned until 9 a. m. Thursday, May 16.

**Second Session.**

The general session was called to order by President Stockwell at 9 a. m., May 16th.

The President then presented to the Society Dr. James B. Herrick, professor of medicine in Rush Medical College, who delivered an address on "Methods of Diagnosis." (See page 319.)

On motion of Dr. George Dock, Ann Arbor, a standing vote of thanks was extended to Doctor Herrick.

Dr. C. B. Burr, Chairman of the Council, on behalf of the Society, presented to Dr. A. P. Biddle a silver platter, in recognition of his untiring efforts in behalf of the Society during the tenure of his office as secretary from 1900 to 1906. (See June issue of JOURNAL, page 300.)

The presentation was responded to by Doctor Biddle.

The general session then adjourned.

**Third Session.**

The third session of the Michigan State Medical Society was called to order by President Stockwell at 11:45 a. m., Thursday, May 16, 1907.

1. The minutes of the last session were read and approved.

2. Report from the House of Delegates was made by Secretary Schenck.

By Dr. F. W. Robbins, Detroit: Moved that the report be accepted and adopted.

3. Report of Committee on Contract Practice, by Dr. T. S. Langford, Jackson, Chairman. (See page 377.)

By Dr. F. W. Robbins, Detroit: Moved that the report of Committee be accepted and Committee continued.

Supported by Dr. Haughey with the amendment that they submit some resolutions for the action of the Society next year.

Amendment supported by Dr. C. B. Burr, Flint. Carried.

Motion as amended put to vote and carried.

Dr. F. B. Tibbals, Detroit, presented the following resolutions and moved their adoption:

Whereas, In the State of Michigan there is a large amount of medical and surgical service rendered to individuals in accordance with some form of contract entered into by physicians and certain organizations, and

Whereas, This form of practice in a great number of instances works to the serious detriment of the interests of the profession and of the general public, and

Whereas, This form of practice is not diminishing, but on the contrary seems to be increasing at a rapid rate; be it

Resolved, That the Michigan State Society heartily commends and supports judicious action of the component county societies to the end that objectionable practice of this character be abolished or limited as far as possible; and be it further

Resolved, That the Secretary of each County Society be urged to file with the State Secretary as much data as possible regarding the character of such contracts and the name of organizations seeking to make such arrangements with physicians with an approximation of the number of patients affected thereby, and to secure as complete a list as possible of members who agree *not* to do contract practice and that these reports and names be compiled and published in a regular issue of the JOURNAL.

Further, be it Resolved, That the State Secretary send a copy of these resolutions to all employers' liability companies, sick benefit and fraternal organizations doing business in Michigan which solicit physicians to enter into such contracts.

Supported by Dr. A. H. Rockwell, Kalamazoo. Carried.

Dr. A. L. Seeley, Mayville, gave the report of the Special Committee on Contract Practice that has to do with contract work in caring for the indigent. (See page 380.)

By Dr. C. S. Oakman, Detroit: That the report of the Committee be accepted and adopted and a copy of it be sent to each county society. Supported and carried.

Dr. H. B. Garner, Traverse City, introduced the following resolution and moved its adoption:

Be it Resolved, That the Committee on Legislation and Public Policy be requested to prepare



a bill providing that the Board of Poor Commissioners of each county shall comprise at least one member who is a physician and member of the Michigan State Medical Society.

Supported by Dr. J. W. Inches, St. Clair. Carried.

Dr. D. K. Black, Greenville, presented the following resolution and moved its adoption:

Whereas, The average medical student graduates with little other than intuitive knowledge regarding the ethics of his profession, be it

Resolved, That the Council endeavor to establish in each Michigan medical school a course of instruction upon this vital topic, and that special attention be thereby called to the evils of contract practice and the division of fees, and to the importance of early affiliation with the County and State Society.

Supported by Dr. W. H. Haughey, Battle Creek. Carried.

Dr. F. W. Robbins, Detroit, moved the adoption of the following resolutions:

Whereas, Several accident and liability companies have in the past, and do now, write policies granting full surgical aid to the injured, and

Whereas, Such aid is given by the surgeons without adequate compensation, and

Whereas, In many ways, such contracts, as regards the surgeons, are non-professional, unjust and dangerous,

Be it Resolved, That the Michigan State Medical Society earnestly protests against any such accident and liability contract being written in the State of Michigan whereby full surgical aid is assumed.

Be it further Resolved, That a copy of these resolutions be forwarded to the Secretary and chief Medical Officer of each Accident and Liability Company doing business in Michigan.

Supported and carried.

4. The Business Committee, through Dr. F. W. Robbins, reported the resolution introduced by Dr. L. J. Hirschman, at the general session on May 15th, and recommended it for adoption. (See page 364.)

By F. B. Tibbals, Detroit: Moved the adoption of this resolution. Supported and carried.

By Dr. A. E. Alvord, Battle Creek: That this resolution be referred to the Committee on Legislation and Public Policy for their use and aid in promoting the passage of the L'Esperance Bill without amendment.

Supported and carried.

The following resolution was introduced by Dr. J. W. Inches, St. Clair, from the Committee on Legislation and Public Policy:

Whereas, A bill has been introduced in the State Legislature, known as the Lord bill, creating a State Board of Registration and Examination for Nurses, and

Whereas, The profession of nursing is one that is entirely auxiliary to the general practice of medicine.

Be it Resolved, That it be declared the sense of the Michigan State Medical Society, assembled in Annual Session at Saginaw, that in any legislation providing for it, state supervision, examination, or registration of nurses be placed in the hands of and be made part of the duty of the State Board of Registration in Medicine, and

Resolved, That the Secretary be instructed to transmit a copy of these resolutions to the Chairman of the Committee of Public Health of the House of Representatives at Lansing.

By Dr. F. W. Robbins, Detroit: Moved the adoption of the above resolution. Supported and carried.

5. Dr. A. P. Biddle, Detroit, Chairman of Committee on Nominations, announced that Dr. Herman Ostrander, of Kalamazoo, had been elected President for 1907-08.

President Stockwell requested ex-Presidents Alvord and Bulson to escort President-elect Ostrander to the chair, from which place Dr. Ostrander expressed his thanks and appreciation for the honors shown him.

Resolutions were presented by Dr. A. N. Collins, Detroit, extending a vote of thanks to Saginaw for the excellent manner in which the Society had been entertained.

Adjournment, *sine die*.

(Signed) B. R. SCHENCK,

Secretary Michigan State Medical Society.

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### Report of the Council

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#### *To the House of Delegates:*

A heavy loss has fallen upon the Council in the death of Dr. Wm. J. Herdman, of Ann Arbor. Identified throughout his entire professional life with the State Society, active in its undertakings, mindful of the tremendous responsibilities of a physician to his profession, earnest, untiring and zealous in work, his loss means much to the or-

ganization. Of high ideals and consistent Christian life, he typified the best in his chosen field of endeavor. It is not the present intention to pass estimate upon his life and character, or pay eulogy however deserved. All this has been done elsewhere. The Council would express its appreciation, however, that for the last year of his life it had the benefit of his sagacity, wisdom and experience. The records of its meetings show his active part in its deliberations.

The President appointed Dr. George Dock, of Ann Arbor, to the unexpired term of Dr. Herdman. He has taken up the duties with wonted enthusiasm and earnestness and has brought to the work much helpful suggestion and valuable judgment.

The past year has seen a medical revival in Michigan. The work of the county societies is carried on with an energy not before in evidence, and new lines of endeavor are followed in many of the representative and progressive societies. The Council takes great satisfaction in announcing that in six county societies of the state post-graduate medical courses have been established. These classes meet as a rule weekly, and at each session there has been appointed from the membership of the society or from the outside, some individual to discuss a medical or allied subject— anatomy, the physiology of organs or systems of organs, hematology, urinary analysis, bacteriology, the investigation of sputa, public hygiene, and the etiology of disease. The work has redounded greatly to the credit of the profession. The county society has been a nucleus for intelligent thought and observation and the members have been stimulated to more careful study and better professional effort. Nothing is so developmental to the student as teaching. To assemble his facts in a way to impart his knowledge to others, is to bring about comprehensive and lucid thinking in the mind of the student himself. Organization has brought about a new era in medical matters and the profession is beginning to reap its benefits upon the intellectual as well as the material side.

The direct inspiration of the work of which mention has just been made lay in the visit of Dr. McCormack to Michigan last fall. An eloquent and forceful speaker, a tactful adviser, an excellent physician and pre-eminently qualified to discuss medical affairs, he left in all the communities whose good fortune it was to listen to his lecture, a most favorable impression. The convincing character of his remarks could hardly be better illustrated than in the case of a divine

at a meeting which the Chairman of the Council attended, to the effect that Dr. McCormack might on the occasion of a future visit at any time occupy his pulpit.

The American Medical Association in delegating Dr. McCormack to this duty, a true missionary field, has done vast service for medical advancement and in the direction of public morality.

Three thousand copies of the McCormack address as published in the JOURNAL have been reprinted by the authority of the Council and are available for the purposes of members. Copies can still be obtained from the Secretary.

*Change in Councilor Districts.* For reasons which appear to the Council sufficient, it is recommended that Cass County be transferred from the Third to the Fourth Councilor District and Branch County from the Second to the Third Councilor District.

*Expiration of Terms of Councilors.* The terms of five councilors expire at the present Session. Four councilors have served the term of appointment. The fifth vacancy occurs because of failure to elect an additional councilor at the 1906 meeting. Owing to this failure one councilor has served in the interim through the appointment of the President. It is desirable that the very best material should be selected for this governing body of the Society. Delegates are urged to present the names of men of their choice to the nominating committee.

*Museum.* At the mid-winter meeting of the Council, President Stockwell presented a suggestion looking to the establishment of a museum and library for the State Medical Society. He very generously offered a collection of instruments and books of historical interest as a nucleus for the museum. The Council still has the matter under advisement. A permanent home for the State Medical Society is a dream of the future and should be in time within the reach of the profession.

*The Journal.* The Journal of the State Medical Society has been issued with commendable regularity during the past year. In its typographical make-up, in its editorial outgivings, and in the character of the matter presented it stands among the very best of the medical journals of the country. The Council takes pride and gratification in the work of the Secretary-editor which has been onerous and difficult. In view of the constantly increasing amount of work and the danger of disorganization of the editorial department in

case of absence or incapacity of the Editor-in-chief, the Council at its January meeting authorized the engagement of an associate editor. The appointment was tendered to and accepted by Dr. C. S. Oakman, who brings a well trained mind and an excellent medical equipment to the work.

About 60 more pages of reading matter appeared in the JOURNAL in 1906 than in 1905.

*Finances.* The following statement covers all transactions from January 1, 1906, to January 1, 1907:

Cash in Treasurer's hands, January 1,  
1906 .....\$1,205.46

**Receipts**

Dues .....	\$3,290.29	
Advertising (gross) .....	2,297.78	
Subscriptions to Journal.....	10.50	
Blanks to County Societies...	3.31	
Refund. Mich. State Passenger Association .....	12.00	5,613.88
		<u>\$6,819.34</u>

**Disbursements**

*Journal—*

Printing Journal .....	\$2,769.35	
Mailing (addressing and putting in envelopes) .....	51.50	
Postage (2c to Detroit members) .....	90.98	
Postage (2d class), state members .....	81.26	
Salary—Editor .....	300.00	
Mailing list .....	98.20	
Etchings .....	22.60	
Advertising comm., 20 per cent. gross .....	455.89	
Postage .....	37.21	
Office help .....	55.00	
Envelopes for Journal (25,-000) .....	63.12	
Printing, stationery, office supplies .....	20.85	
Adver. comm. W. P. Long, New York Agent .....	6.65	
Committee on Publication..	3.78	
Exchange at bank.....	7.15	
Binding Exchanges .....	27.15	
Telegrams and express.....	2.25	
		<u>4,092.94</u>

*State Society—*

Jackson meeting .....	\$ 75.00
Printing and mailing programs .....	90.00
Postage .....	37.22

Secretary — salary .....	300.00
Office help .....	60.00
Exchange at bank .....	7.15
Telephone, telegram, express .....	2.75
Printing, stationery, office supplies .....	55.50
Secretary of Council, expenses .....	50.00
Stenographer of Council....	50.00
San Francisco relief fund...	500.00
Mich. State Passenger Assoc.	12.00
Council Jan., '06, meeting...	18.00
McCormack appropriation ..	199.11
Index case (card catalogue) ..	4.00
Secretary's expenses to state, district and county meetings .....	38.59
	<u>1,499.32</u>

Total expenditures....	\$5,592.26
Cash in Treasurer's hands, January 1, 1907 .....	1,227.08
	<u>\$6,819.34</u>

From this statement it will be seen that the surplus for the year was \$21.62. Inasmuch as two appropriations made by the Council at the Jackson meeting were extraordinary, they may be justly included in the profits. These appropriations were \$200 for the McCormack meetings, of which \$199.11 was expended, and the \$500 for the San Francisco relief fund. If these are added to the net surplus, the profits for the year are \$720.73.

The Society now has over \$1,200 in the treasury. Such an amount, or more, is needed as a working capital, but it should not be the policy to add greatly to it, it being better to expend the profits in improving the JOURNAL, in the promotion of post-graduate study and in the education of the public along hygienic lines.

*Membership.* The total paid membership for 1906 was 1,873. All members who had not paid for 1906 were stricken from the roll on December first, no names being taken off, however, until a notice had been sent to the county secretary and to the individual member. Since December first 138 names of either new members or those reinstated have been added, making the membership on May 13th, 2,011. Of these, 1,476 have paid for 1907.

It can not be too strongly urged upon the county secretaries that they make more earnest efforts to collect and remit dues promptly. No other one factor can add more to the success of



the society and its JOURNAL than the prompt collection of dues.

*Records.* During the year a new card catalogue of membership has been completed. The system of ledger cards adopted is such that names will not require copying until 1920. When a member dies, his card is so indorsed and filed under his county. A card is never to be destroyed. In a few years much valuable data will have been collected.

*Proportion of Membership to the Total Number of the Profession in the State.* The gathering of material for the new A. M. A. directory furnished information regarding the profession of the state never before accessible, at least without great labor in the compilation.

According to the advance sheets, on which the enrollment is given by counties, there are 4,202 physicians in Michigan. Of these, 274 are listed as homeopathists and 77 as eclectics. The latter figures are, however, not correct, as many physicians belonging to these schools are not so reported. From the number of physicians in the various counties, a chart has been compiled showing the percentages of membership to the total number of the profession in each of the councilor districts. This does not take into account the few physicians who reside in one county and are members of another county society, nor is any allowance made for members of other than the regular school of medicine. The latter are comparatively numerous in the southern tier of counties and relatively few in the northern peninsula. These errors, however, are not great, so that the lines on the chart are fairly accurate.

*The Committee on Tuberculosis.* The Committee on Tuberculosis, as the Society is aware, instituted a vigorous campaign in the direction of the education of the public on the subject of tuberculosis and its prevention. To aid this work, the Council has made an appropriation of \$50 for postage and printing.

*Recommendations.* It is recommended that notice of amendments to the constitution and by-laws be given at this meeting, to provide for the election and installation of future presidents of the society in accordance with the practice which obtains in the American Medical Association.

The Council recommends that each county society elect, at its annual meeting, one member to serve on the Committee of Legislation and Public Policy.

It is also recommended that each county society,

which has not such, elect a Board of Censors, to whom are to be referred all matters pertaining to ethics, discipline and morals of its members.

*Journal Advertisements.* The policy of the JOURNAL in respect to its advertising, declared by the Council, is as follows:

Advertisements of remedies approved by the Council on Pharmacy of the American Medical Association may be admitted to its pages.

Advertisements of remedies expressly disapproved by the Council on Pharmacy shall not be accepted.

Advertisements of remedies advertised to the laity shall not be accepted.

The JOURNAL does not stand sponsor for advertisements in its pages, or necessarily approve of those published.

Reading notices shall not be admitted after contracts calling for the same have expired.

The JOURNAL invites professional criticism of individual advertisements.

As to questionable advertisements, the editor is instructed to exclude them, acting upon his own judgment, or in consultation with the Publication Committee.

*Delinquent Societies.* Alpena, Cheboygan and Charlevoix have paid no dues during 1906. Should not something be done to arouse enthusiasm in these counties?

*Necrological.* Two honorary members of the State Society have died since the Jackson meeting, Dr. Morse Stewart, of Detroit, and Dr. Lyman W. Bliss, of Saginaw.

All of which is respectfully submitted,

(Signed) C. B. BURR,  
Chairman.

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## Report of the Committee on Legislation and Public Policy

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*To the President and Members of the House of Delegates, Michigan State Medical Society:*

Your Committee on Legislation and Public Policy beg leave to report as follows:

Pursuant to a resolution referred to it a year ago, a bill was prepared and introduced in the present state legislature amending the Criminal Mal-Practice Act and providing that any woman applying for, or inducing any person to commit a criminal abortion should be deemed guilty of manslaughter.

The bill was referred to the Committee on Judiciary and that committee refused to report it out, on the ground that such an amendment would lessen the probability of a conviction by rendering unavailable evidence which can now be used. Your committee, after further consideration, is of the opinion that the point raised by the Committee on Judiciary is well taken and nothing further has been done in the matter.

Your special committee which was appointed to draft a law dealing with the Patent Medicine Evil prepared a bill and referred it to this committee for introduction in the legislature. It was referred to the Committee on Public Health, where, upon examination, it was found to be entirely too drastic.

The Committee on Public Health, of the State Legislature, and this committee agree that any bill regulating the sale of patent medicine in Michigan should conform strictly, as far as may be, with the terms of the Federal Pure Food Law, so that articles coming into this state, which have been prepared in conformance with the provisions of that law, will be salable here without further requirements in the way of labels, etc. Legislation going beyond this would certainly fail of passage at the present time, even if it were advisable. A substitute bill is, therefore, at present being considered by the Committee on Public Health, and will probably be reported out for passage in a few days.

In addition to the foregoing, there is now before the legislature a bill prepared by the State Board of Registration in Medicine, and known as the L'Esperance Bill. This bill is an amendment to the Chandler Bill of 1899, as amended by the Nottingham Bill of 1903, and is intended to simplify the work of the Board of Registration under these acts. There are no new principles involved in the bill and no change is made in the representation allowed the different schools of medicine upon the board or in the general requirements for registration, the only new provisions being such as the experience of the board has shown to be necessary to enable it to properly carry out and enforce the principles established in the previous bills, but which were not sufficiently defined or were left without explicit manner of administration being provided.

Notwithstanding this fact, your committee found on visiting Lansing that enough opposition to the passage of the bill had developed, from the same sources that have opposed all advances in medical legislation to imperil and render very

doubtful its passage, unless it receives the endorsement it deserves from members of this society and physicians of the regular school throughout the state.

A few days ago the Chairman of the Committee on Public Health at Lansing, who is also a member of this society, stated to your committee, and complained of the fact that, so far, this endorsement by the regular school was conspicuous only by its almost entire absence, and that unless the medical profession generally evinced more interest in pending legislation in which it was vitally interested, it would be very difficult to accomplish much against the efforts of those who are always ready to strenuously oppose any legislation which is calculated to curtail their income or drive them out of existence, by protecting the public at large.

Some time ago circular letters were prepared by this committee and sent to all of the county societies, or component branches of this society, asking that their senator and representatives be notified that they had endorsed pending medical legislation and requesting its passage, but up to a few days ago the response to these letters was only a small fraction of what it ought to have been, and so scattered as to cause marked comment on the part of the interested legislators.

In all that pertains to medical education and the regulation of the practice of medicine, Michigan has, in the past decade, gone from a position lamentably near the tail end of the procession in the sisterhood of States to an honorable place in the very forefront, and it would indeed be unfortunate if after such splendid work a reaction should set in and she should be unable to retain her rank, through neglect on the part of the members of this society to keep awake to their work and opportunities.

The only way that a high standard of medical education and practice can be established and maintained is by united effort; the opposition is always united and ready, and your committee would suggest that means be considered by which the united support of the regular school throughout the state can be obtained, when necessary to secure the passage of legislation which has been approved by the State Medical Society, and prepared under its direction.

It is often said that physicians are proverbially procrastinators in affairs of business, and it is also probably true that not one physician in ten, if asked, could tell the name of the members of the legislature who represent his district.

To these two facts can probably be ascribed

the difficulty in getting physicians generally to endorse legislation by writing to their representatives at Lansing, so that if some means were devised by which circular endorsements already addressed to the proper senators and representatives could be placed in the hands of every physician of the regular school by this society, needing only signature and posting, it is probable that several thousand endorsements could be poured into the legislature at any time when it became necessary to exert the united influence of the profession.

Such an endorsement coming to every senator and representative from the entire medical profession of his district would constitute an immense power for good if properly used, and if possible, it should be made available.

All of which is respectfully submitted,

(Signed) J. W. INCHES,

Acting Chairman.

FRANK BURR TIBBALS.

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#### Report of the Michigan Member of the National Legislative Council of the American Medical Association.

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After listening to the worthy and very excellent report which has just been given us regarding legislative affairs in the state, I am prepared to submit my own report, which has reference to National Legislation somewhat along the same lines; and to inform you, if you have not already informed yourselves, what we have accomplished and what we are now trying to do in the interests of the profession generally.

You may not know all about the composition of this Council, or Committee. It is composed of the Bureau of Legislation, consisting of three members elected by the House of Delegates of the American Medical Association; these three members choose one delegate from each state in the Union and certain gentlemen from the Army and Navy. These constitute the National Legislative and Congressional Committee of the A. M. A. with headquarters in the building of the A. M. A. Journal in Chicago. The last meeting was held, as all of the meetings are held, at the seat of National Legislation in Washington in the month of December, the 13th, 14th and 15th, 1906. We there met a number of the members of both houses and endeavored to push our recommendations, and with such help as we could get I think we have accomplished something. We have rec-

ommendations to make to the various State Societies and I am here this evening for that purpose.

We are attempting to create a national Department of Public Health and Hygiene. This matter has been before the profession a number of years. At last, however, we have crystallized into a committee, which in April of this year of 1907 was appointed in the city of New York, one of the members of which committee is President Angell of the University of Michigan. This committee met to urge the formation of a National Bureau of Health, the Secretary of Public Health to have a seat in the Cabinet of the President. We have interested men of large business experience and influence, and professional men of the highest standing and worth throughout the country. We have reason to hope that within a very few years we will have as a member of the Cabinet of the President of the United States, a physician who will have charge of public health and hygiene.

We are ever anxious for the passage of a bill to give some relief to the family of Dr. James Carrol, who allowed himself to be inoculated with the germs of yellow fever in the interests of humanity, and humanity has done nothing for him. We are now attempting to have something done by the Congress of the United States, and with a very excellent outlook.

The Army Medical Registration bill has been before us and we are getting this matter before the National Legislature looking toward having some recognition of contract surgeons and others who may be in the army without having passed the regular examination at an early period of their professional life. With all the experience a man may have he ranks very much below an ordinary second lieutenant. We are trying to get positive rank for these gentlemen. This bill when it was last brought before the House was killed simply by the Speaker of the House, who refused to give it recognition, therefore it was never introduced.

There seems to be a necessity of uniform legislation along the lines of the now existing pure food and drug law. Medical men should watch what is being done as they only, outside of the manufacturers themselves, are able to do so. Keep your eyes on what is being done at Washington, and when you see anything which you do not consider for the best good of the people and profession write your representative at Washington and inform him of your views.



The Osteopathic bill introduced this last session of Congress is a measure we are all very anxious to put down, not because it was a bill dealing with osteopaths but because it struck at the very foundation of medical education. Their entire course consists of twenty-seven weeks, but with no preliminary educational requirements whatever.

I will not attempt to touch on the manufacture and sale of patent medicines as a committee from this state has already had something to say.

I wish to speak about the formation of a National Auxiliary Committee. Some of you have received circulars from me within the last two months. Some years ago we appointed a member of each county medical society to form an auxiliary committee on National Legislation, and it has been taken for granted during all the years that followed that all these gentlemen were still alive and ready to take an active part whenever called upon. We have found that some of them have been dead several years. The Bureau on Legislation of our national association has attempted to revise this list during the last few months. Although this list is not entirely finished I will furnish you a duplicate of it and if you see your way clear to appoint these same men on your State Auxiliary Committee we would have the same men working for the State and National Association.

All of which is respectfully submitted,  
FLEMMING CARROW.

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### Report of the Committee to Encourage the Systematic Examination of the Eyes and Ears of Schoolchildren

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*To the President and Members of the House of  
Delegates of the Michigan State Medical So-  
ciety:*

The committee appointed to encourage the systematic examination of the eyes and ears of school children throughout the state has the honor to make the following report:

During the past winter the State Board of Health adopted a resolution favoring the plan as outlined by the American Medical Association and passed the following resolution:

Whereas, the value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures,

Therefore, be it resolved, That it is the sense of

the State Board of Health of the State of Michigan that measures be taken by boards of health, boards of education and school authorities, and, where possible, legislation be secured looking to the examination of the eyes and ears of all school-children, that disease in its incipency may be discovered and corrected.

The State Board of Education has adopted a similar resolution.

In order that it may be clearly understood how the various states stand on this matter, the following extract from Dr. Allport's paper published in a recent special journal is given:

The following state boards of education have endorsed the tests: Texas, Kansas, Minnesota, Colorado, Wisconsin, North Carolina, Vermont, Michigan.

The following State Boards of Health have endorsed the tests: Kansas, Minnesota, Colorado, Wisconsin, North Carolina, Vermont, Illinois, New York, Montana, Indiana, Connecticut, Ohio, Maine, New Hampshire, Michigan, Utah, Pennsylvania, North Dakota, Rhode Island, Alabama, New Jersey.

The following State Medical Societies have endorsed the tests: Minnesota, Colorado, Illinois, New York, Montana, Indiana, Michigan, North Dakota, Rhode Island, Alabama, South Dakota, California, Massachusetts, Arizona, West Virginia, Washington, New Jersey, Kentucky, Indiana, Louisiana, Nebraska.

The following State Legislatures have ordered the tests to be made: Vermont, Connecticut, Massachusetts.

It will thus be seen that the state board of education in eight states, the state board of health in twenty states, and the state medical society in twenty-one states have endorsed the tests. In three states the state legislature has ordered the tests to be made.

The Vermont law is perhaps the best one so far enacted, and is here given.

Sec. 1. The State Board of Health and the Superintendent of Education shall prepare, or cause to be prepared, suitable test cards, blanks, record books and other needful appliances to be used in testing the sight and hearing of pupils in public schools, and necessary instructions for their use; and the Superintendent of Education shall furnish the same free of expense to every school in the state. The Superintendent, principal or teacher in every school, during the month of September in each year, shall test the sight of all pupils under his charge, and keep a record of such examinations according to the instruction fur-

rished, and shall notify, in writing, the parent or guardian of every pupil who shall be found to have any defect of vision or hearing, or diseases of the eyes or ears, with a brief statement of such defect or disease, and shall make a written report of all such examinations to the Superintendent of Education, as he may require.

Sec. 2. The state auditor is hereby directed to draw his order on the state treasurer for such sums and at such times as the Superintendent of Education (with the approval of the State Board of Health) may require to carry out the provisions of this act. The total expenses under this act shall not exceed six hundred (\$600.00) dollars in any bi-annual term ending June 20.

How the act is working practically, your committee has been unable to determine. Before another legislature convenes, however, we shall have sufficient knowledge of the practical working of the law to make a definite recommendation.

As regards the work that is being done in the state: The scholars in the schools in the following named cities are being examined more or less thoroughly: Detroit, Grand Rapids, Bay City, Saginaw, Pontiac, Kalamazoo and Ann Arbor. Every innovation along educational lines meets opposition, and this has been no exception. In spite of this opposition, however, the work is progressing satisfactorily.

The method of examination advocated by Dr. Allport, of Chicago, has been followed. The parents of the scholars are given a card stating the nature of the defect with the advice to consult a physician at once.

(Signed) WALTER R. PARKER,  
CHAS. H. BAKER,  
JOHN R. ROGERS,

Committee.

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### Report of Committee on Tuberculosis

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*Mr. President and Members of the House of Delegates:*

In reviewing the work of the Tuberculosis Committee appointed a year ago I shall try to call attention to the things that we have done or tried to do during the last year.

In organizing this committee we have made every effort to secure representation of the different parts of the state. In some ways this has worked out to an advantage. The committee as now organized represents the northern, central,

western, southern and southwestern sections. It may be well to take up the work we have endeavored to do in the different sections, or through the efforts of other associations working in harmony with our state committee.

In the northern peninsula the work is well under way. At the March meeting of the Board of Supervisors of Marquette County, Dr. Hartmann addressed them on the necessity of establishing local sanitariums for the benefit of poor or semi-indigent people unable to meet the expense of going on a long journey to the state sanitarium. His efforts were met with success. He is going to keep hammering away until he gets a local sanitarium for the care of that class of people, sufficient for Marquette county. Dr. Hartmann's position is this: Many people can be benefited locally who would not make an effort to go on the long journey to the State sanitarium, or to a distant health resort. I believe him to be right in that position, and our committee will give him any endorsement it may be necessary. The work of the northern peninsula will be extended and carried on still further.

Coming down the state a little further to Manistee county, under the auspices of the County Society, last July was held one of the most successful tuberculosis exhibits ever given in this state, considering the size of the city of Manistee. This exhibit lasted ten days and the meetings were addressed by good and able men from Chicago, Milwaukee, and other places, in addition to addresses by the local physicians. In this exhibit we reached an audience of something over three thousand actually in attendance. Through the newspaper campaign, carried on the entire ten days, we reached about five thousand people more. The subject taken up was "The Ways and Means of Preventing and Restricting Tuberculosis." The work in Manistee county to a certain extent has borne fruit. The City Health Officer has succeeded in carrying through compulsory disinfection of all houses vacated by renters. Often a member of the family of some renter dies as a result of tuberculosis or some other sickness. The family feels that the house has something to do with it and immediately moves. The next tenant knows nothing as to who has occupied it previously and is exposed to all kinds of diseases. Our Board of Health has instituted a line of work which I believe should be recommended to every city in the state—that is the compulsory cleaning up and disinfection of every house or flat as soon as vacated by the last tenant, this disinfection to be compul-



sorv and carried out before the next tenant is allowed to move in. The City Library has made some little effort. It has secured a number of books and is endeavoring to establish a special reading table for the purpose of furnishing information on anything along sanitary lines or other lines of public work. We have also in Manistee County an embryo sanitarium association that some day we hope to see amount to something. Many of the doctors of the society are members and sooner or later we hope to give a little better account of ourselves.

In addition to the work of the Tuberculosis Exhibit, at least eight or ten different lectures have been given in different parts of the county emphasizing the necessity and need of carrying this work into the farming districts. In a certain school district in Manistee county at least two deaths, to my knowledge, have occurred within the last two years, among the school children in that one little country district and a third child is ill with the disease and will probably die. All three were girls under fifteen years of age. A sister of one of the girls died of tuberculous peritonitis at the age of about twenty-two or twenty-three. She had also grown up in that school district. These three families from which the three deaths occurred all lived within eye-shot of that school house, and no one has ever made any attempt to investigate the conditons there. I was called in to see one of these patients some time ago—the girl who is still living—an advanced case of tuberculosis. While I was there I noticed that this child was in the habit of playing on a little mouth organ. There were three other children in the family, a babe in arms, a girl of seven and a boy of twelve. I asked the mother if she permitted the other children to handle that mouth organ. "Yes," she answered, "they use it just as much as he does." I explained the danger, told her that she must not let it continue, that she must use care in boiling the dishes; under no circumstances must she allow anything that had been in that child's mouth to go into the pouths of the other children. That mother looked at me and as she realized what she had been unconsciously doing, her eyes filled with tears as she answered, "Why didn't somebody tell me of this before; I never dreamt it?" This mother had been raised in that same school district and had attended that same district school, and yet our state school law says there shall be taught in every school and every school district and every year, the ways and means of preventing the spreading of communi-

cable diseases. In how many school houses in this state is that law being complied with? Our school officers are responsible. Our school teachers are responsible for that conditon of affairs. Do you mean to tell me that if the teachers' profession were doing their duty that such a condition of affairs could exist? Hence the necessity of carrying the study of tuberculosis into the country schools as well as in the cities.

Another fertile field for work is the farmers' institute. The farmers are just as anxious to learn the ways and means of preventing tuberculosis as are other people in the state. They are interested in tuberculosis in cattle. In every instance the supply of milk to private family, public hotel and people generally should be tested with tuberculin, a test which is accurate in probably ninety-five per cent. of the cases. I wish to urge upon the members of the profession and members of the different county society tuberculosis committees that they take up this suggestion—the prevention of tuberculosis on the farm—from the dairy standpoint. I was talking with a young man a while ago who makes these tests. Out of a herd of twenty-two as likely cattle as you would find on any farm eighteen had tuberculosis. Their milk was going into the homes of people of Grand Rapids daily. His chiefs could hardly believe the statement. They waited one or two months and tested the same animals again with the same result. They were killed and autopsy verified his statement.

In the city of Grand Rapids during the past year progressive work has been done. Schools, clubs, fraternal societies and churches have raised two thousand dollars to care for the indigent poor, and the work will be carried on still further.

In the southwestern portion of the state under the auspices of the Kalamazoo Academy of Medicine the work has been instituted in good shape. One or two good meetings have been held, one public meeting in the Methodist Church of Kalamazoo I understand was very well attended. I want to see this taken up in every city, town and village.

In the city of Detroit they have an anti-tuberculosis society. Harper Hospital had some thought of establishing a special tuberculosis ward, but the feelings of the neighbors of Harper Hospital knocked that proposition in the head, and the directors have finally given up establishing a special ward. This leaves the city of Detroit without a single hospital that will care for this class of patients and the only chance for the sufferer from tuberculosis is the county poor house. This work



at the Wayne County poor house instituted by Dr. E. L. Shurly has been excellently done. With the means at their disposal they are capable of caring for twenty-four patients in tents and in addition to this about thirty advanced cases at the county poor house. Otherwise Detroit is without accommodations for her tuberculosis sufferers.

The conditions in many of our county poor houses is a disgrace to modern civilization. In one county the poor tuberculosis sufferers are sent to a seven by eight room, left, probably to die, alone and practically without the attention of a physician; practically no effort is made to prevent them from infecting other patients; they are left without care and without proper food. It costs the institution something like twenty-five cents a day per capita to feed its inmates. You cannot properly feed a tuberculosis patient on that amount.

The condition of our penitentiaries needs attention. Marquette is to be congratulated. Dr. Hornbogen tells me that at Marquette out of a total number of seven deaths in eight years, but five were from tuberculosis. This is certainly a record to be proud of. Still our prisons and county jails need to give this matter attention.

Another line of work that our standing committee is attempting to institute is the matter of a tuberculosis census record. We have sent out a census blank and asked the doctors to make returns. Many of our county societies have absolutely paid no attention to those requests. Some are still appointing their committees. We hope to carry on this work and if possible gain something like an accurate knowledge of the extent of the disease in the state. Many state statistics are unreliable. In a certain city which shall be nameless the Health Officer reported only eight cases of tuberculosis in the city. One of the doctors in the same city sent in a census report to our state committee reporting twelve cases in his own practice. There are thirteen or fourteen other physicians in that city, the majority of them have reported, their reports running from three to five patients. The health officer officially knows of only eight cases in the city. This shows you the necessity of locating these cases that they may be given at least some sort of supervision, and some sort of instruction as to how to prevent the spreading of the disease to other members of the family.

I wish to urge on the members of the House of Delegates that you go back to your county societies ready to urge that each and every county

society take up this tuberculosis educational work. One, or two, or three, the more the better, good, earnest, enthusiastic workers in each and every county society will put a different face on the condition of affairs in your home county. Will you do it? In the name of the Committee I ask you to carry out at least a few of our recommendations.

W. E. COATES, Chairman.

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### Report of the Committee on the Patent Medicine Evil

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Our Committee has not a very lengthy report; we shall merely summarize in a brief manner the work which has been begun this year and try to point out a line of work for the future.

Owing to the excessive amount of private work during the past spring and winter and the distance apart of the homes of the committee, no full meeting of it has been had, though several efforts have been made. Following the recommendations in the report of this committee last year, our first work has been an effort to call the attention of the lay press to the pernicious effects of much of the advertising that is carried in its columns. This has been accomplished by letter and personal interviews. It is, however, a very difficult matter to make much headway. The question of pecuniary benefits with the very great majority of publications is all that counts and often when, if the personal wishes of the editors could be carried out, advertising columns would be cleaner, the will of the owners or a board of directors, caring nothing for the ethical and religious side of the question, make it impossible to accomplish the desired change. Only persistent work and education of the public along these lines to a point where a demand for cleaner literature in the home is insisted upon, will carry the day. The press is in some cases, as shown by Mr. Bok, of the *Ladies' Home Journal*, practically subsidized. Advertising contracts carry often a clause that if adverse legislation should be enacted the contract shall be null and void. This places the paper at once where it must oppose any legislation to restrict the evil. The following letter was written to the Secretary of the Press Association at their recent meeting in Detroit:

Mr H. A. Hopkins,  
Secretary Michigan Press Association,  
Detroit, Mich.:

Dear Sir:—The Michigan State Medical Society has appointed the undersigned committee on "The Patent Medicine Evil."

This committee recognizes the wide extent and deep-rooted character of this evil, and that under present conditions it is greatly strengthened and made more dangerous to the public health by the abuses of advertising in newspapers, both secular and religious. Many of these advertisements are deceptive in statement, and misleading in fact; some of them appealing to the vicious, some tempting to crime and abortions—the most prolific of all causes of "race suicide"; some holding out false hopes of cures of incurable diseases; some bordering on indecency; and many of them apart from their falsity unfit for circulation in respectable families.

The public needs protection against unscrupulous dealers in medicine, even more than against impure food. Of the latter they can more safely judge.

In our opinion, few proprietors, managers or editors of newspapers trust themselves or their families when ill to these extravagantly exploited medicines. Yet many "reading notices," so called, which to the unwary appear to be editorial endorsements and commendations of the medicine advertised are the most demoralizing of all paid advertisements. Your members know better than we how many influential papers have cut out this kind of advertising.

We are aware that a single paper, however earnestly disposed, can accomplish but a little alone against these pernicious evils. But an expression of opinion of your association will carry great weight.

This committee has no wish to interfere with your legitimate business. We understand that many of these advertisements are under contracts that cannot be terminated, and that the forms and stereotyped plates are provided, but it seems obvious that no paper can be required to accept at dictation, advertisements that do violence to decency, to good morals and to truth, and that evident offenses of this kind could be shown if demanded.

We respectfully ask your association as co-workers for public good to exert the great power of the press in its own uplifting and the protection of the public health and morals by restricting and correcting in all practicable ways the abuses

of patent medicine advertising and its allied evils.

A resolution from your body condemning the above forms of fraud and acknowledging the work of those journals which are fighting the evil together with whatever else you might think proper will be gladly received and reported to the State Medical Society, as also your acknowledgment of this communication.

We trust you may see your way clearly to such an expression of disapproval of these wrongs.

The committee expect to make similar requests to governing boards and proprietors of religious papers.

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Apparently no attention was paid to this communication, for the committee did not receive even the courtesy of a reply.

With the religious press on several occasions we have been able to get resolutions before conventions of ministerial bodies, condemning the carrying by their publications of pernicious and patent medicine advertisements, but so far as we know, no papers have been influenced to make changes during the past year. In fact, it is probable that the high standard established a year ago by a few of them has been allowed to lapse a little. Nearly every clergyman is surprised when you speak to him of these matters and scarcely believes that the papers of his denomination can be engaged in this pernicious work. They all stand ready and willing to help correct this evil in any way they can. But, it means that we must educate all the clergy of the state to the condition of affairs that exists.

With the medical press we have as great difficulty as any other. Not alone with the cheaper and irresponsible publication which caters to the uneducated doctor and whose main asset is the voluminous advertisements which fill its cheaply printed pages, but some of the higher grades of medical journals, and even our own organ might, in the opinion of the committee, be open to some criticism. We cry out at the advertisements and reading notices in the lay press made to look like editorials, but our own journals carry them.

Last fall after consideration of the question with some of the members of the legislative committee, and following the recommendations of our own committee of last year, a bill was prepared along the lines of the National Pure Food Law, regulating the manufacture and sale of patent medicines; this was turned over to the committee of our society on Public Legislation, and by them to the Committee on Public Health in the House.



We are informed that it went from them to the Attorney General for consideration, and so far as we know it is there yet. If there are any of the members present who can have any influence in the reporting out and the adopting of this bill, your committee would appreciate their influence.

As you know, since our last meeting, the National Pure Food Bill has become a law. Many of us had supposed that this would be effective in our state and we would need no further legislation on this subject, but this is a Federal law; it cannot apply to any one state. It is an interstate law, regulating those articles which are shipped from state to state. None of these articles which are made in Michigan and sold here, not shipped out, need be affected by it. Hence we need local legislation in Michigan to supplement and make more effective the Pure Food Law.

About six weeks ago we mailed to each County Society a letter setting forth the line of work needed in individual and society work. A copy of resolutions as something suitable for each society to act upon was sent. But few societies have had meetings since then, still every one so far has seemed alive to the work and ready to co-operate.

One of the greatest difficulties in this work will be the fact that Michigan is working alone in it; it will be very hard to influence the lay press of one state alone. If the same sentiment and the same work can be started in the other states through the American Medical Association we will, in the future, work to much greater advantage. To this end if the members think best it might be well to take steps to that end by instructing our delegates to offer suitable resolutions at the American Medical Association meeting, or by whatever means may be deemed best.

We wish if this committee is continued, to keep up especially this work at the religious press; to this end we want individual work by members of the society in every town; personal interviews with your home pastors will be of much benefit, once the columns of the religious press are stopped from, and their editorials turned against, these advertisements it will begin to help with the lay press.

A very good way to dispose of agents for periodicals is to turn to the pernicious ads and inform the agent that you cannot support a paper that carries them. The keeping on your office tables of the reprints by the American Medical Association of the articles on these evils recently published by Collier's is earnestly recommended.

It is remarkable and a sign of the times that the most efficient work along these lines is being done by some of the lay press, and that many of the highest class of periodicals are restricting their advertisements. In this connection we wish to especially commend the work of *Collier's* and the *Ladies' Home Journal*. They have been, as most of you know, very active in informing the public of these evils. Much *very just criticism* they have given to the doctors themselves. How can we expect the public to know better, when so many of us continue to prescribe and use the very articles the indiscriminate sale of which we would curtail: Antiplogistine, Antikamnia, Glyco-Heroin, Castoria and a host of other such remedies are daily prescribed by the doctor with no benefit either to his standing as physician or the health of his patients. Look over the files of prescriptions in any drug store and see how much of this is true.

In conclusion we deprecate our own shortcomings as a profession; we have been so interested in following the scientific part of our work that we have forgotten we have other duties to the public as good citizens. We are the ones to whom the public must look for proper education along these lines. But we have allowed those dependent on us to be led by untrue and mercenary teachers.

Shall we keep up this work with renewed vigor or leave it for the natural evolutionary changes which must occur in time to come?

(Signed) GEORGE C. HAFFORD.

Chairman.

#### Report of Committee on Contract Practice

There are many ethical and economical problems demanding solution by the profession of today. That the contract practice problem is not the least is freely admitted.

In accordance with a resolution adopted by the House of Delegates last year a special committee was appointed to investigate and report on conditions in this state relative to this problem.

It is not understood by your committee that it was at all intended as a part of its function to suggest or to recommend ways and means of solving the problem, but simply to gather information as to its character and extent.

Your committee finds the following classes of contract practice carried on by physicians in this state, viz:

1. Railroad contracts;
2. Mining contracts;



3. Contracts for the performance of services for the indigent of counties and cities;

4. Contracts with local industries;

5. Contracts with Sick and Accident Indemnity Companies;

6. Contracts with Fraternal Organizations.

First. As to railroad companies. Your committee finds that every railroad of any importance in the state has an agreement or contract with a surgeon in the cities and towns along its lines providing for the rendering of surgical assistance to persons injured in the company's service or while traveling on its lines.

The compensation consists in most cases of an annual pass over the company's lines, or the payment for actual services rendered in the care of the injured. In very few cases does your committee find complaint that the compensation is inadequate, or that the rights of other local practitioners are infringed upon.

Second. The care of the employees of mining corporations by contract surgeons is practically the universal rule. In some cases large hospital systems are established, employing salaried chief surgeons and large staffs of assistants. The compensation for this service is provided for by deducting a part of the weekly or monthly wage of the employee. This amount is 50c to \$1.00 per month for a single man and \$1.00 to \$2.00 per month for a man of family.

Reports indicate that in some places the employees are dissatisfied with the service rendered and in some instances employ other than the contract service. Your committee has not learned whether of not the medical profession in mining localities is or is not satisfied with the system. Your committee believes the mining contract system a problem demanding further investigation by the physicians resident in the localities where it is practiced.

Third. The investigation and report on contract work done for the indigent of counties and cities was assigned to Dr. Seely of Mayville, Tuscola County, who will render a special report after the disposition of this report.

Fourth: From reports received as to the system of contract service for employees of factories or other local industries we will report the following:

At Benton Harbor, the Baker-Vater Co., employing 300 men, pays the regular local fee bill for care of its injured employees.

At Saginaw, the Plate Glass Factory, employing 75 men or more, has its employees cared for

medically and surgically for a fee to its physician of \$1.00 per month for family and 50 cents per month for a single man.

At Wyandotte, the Michigan Alkali Company, employing 1,350 men, charges its employees 50 cents per month and furnishes contract medical service; also at Wyandotte the American Shipbuilding Company, employing 750 men, collects from the men 10 cents per week for a like service.

At Menominee, the Electrical and Mechanical Company, employing 300 men, furnishes medical and surgical service at a cost to the employee of 15 cents per month.

Certain large insurance companies having Employers' Liability Departments contract on the one hand with the factories and on the other with the physicians, bringing about the result that one physician or more, for a set compensation, will do the surgical work for several industrial plants. For example, in Detroit, the Standard Life and Accident Company has liability contracts with several large factories and industries where the injury hazard to employees is great; by paying to two Detroit physicians a set salary, the amount of which this committee could not learn, they provide not only for first surgical aid to the injured employee, but also for his subsequent care and dressings.

It is the opinion of many Detroit physicians, who have some idea of the amount of services rendered, that the total salary received falls far short of proper compensation in accordance with the fees received in regular practice for like services.

The Standard has similar arrangements at Bay City and Lansing, as well as at Muskegon.

In this class of contract practice is placed that of the Aetna Life and Accident Co., doing a similar business to that of the Standard for large factories in Detroit, Muskegon and Battle Creek. The compensation for the medical and surgical work for this company is a percentage (usually 10%) of an assessment (usually \$1.00 per month) levied on the employees.

It seems to your committee that not all phases of the contract system as operating between the physician and local industries or employers' liability companies are objectionable. Certainly here, as also in the railroad contract problem, the company must be conceded the right to secure for the injured employee proper and sufficient surgical service in order to protect itself from unjust liability claims.

On the other hand any operation of the system tending in any way to degrade and cheapen the practice of our profession or tending to establish in our practice any other standard of competition than that of true professional worth and genuine efficiency as a practitioner of medicine and surgery should be considered as reprehensible.

Fifth and Sixth: The operations of the remaining two classes of contract practice, i. e. of the Sick and Accident Indemnity Companies, and of the Fraternal Orders, can better be considered together.

The data given are compiled from reports sent in from cities of 5,000 and over. The absolute accuracy may in some instances be a matter of doubt, but the statements are in every case so close to the truth that a just conclusion may be drawn from them.

Data on all the organizations of this character can not be included in the report, but on the larger and more active ones only.

I. The National Casualty Company of Detroit, is reported as employing a contract physician in Detroit for an approximate membership of 1500. A statement as to the physician's compensation could not be obtained.

This company in Grand Rapids provides service for a membership of 100 and pays its physician 25 cents per week for each member.

II. The Phoenix Preferred Accident Co., of Detroit, is reported to employ for a usual fee of 10% of the premium collected a contract physician at Battle Creek for 250 members; at Jackson for 200 members; at Detroit for 700 members; and at Lansing for 200 members.

III. The United States Health and Accident Co., of Saginaw, has a physician at Battle Creek caring for a membership of 245, and at Owosso for 200; the compensation as reported varies from \$1.50 to \$3.00 per year per member.

IV. The Continental Casualty Co., of Hammond, Ind., maintains a sanitarium at Detroit with two resident physicians and one visiting surgeon. At Bay City a physician is employed at \$30 per month; the number cared for at that city is not reported. At Lansing there is a membership of 500, but no report was received as to contract physician's fee. This company at Jackson has a membership of 1,400, and pays a local physician \$125 a year to care for all members reporting at his office. Care and treatment are furnished free at the company's sanitarium at Detroit, if desired.

V. The Grand Rapids Accident and Health Insurance Company now combined with the Imperial Casualty Co., of Detroit, furnishes free medical service to a membership of 200 at Jackson, 250 at Grand Rapids, and 300 at Lansing, and pays the physician from \$1.00 per year in some cities, to 25 cents per month in one other for each member.

VI. The United States Accident Association, of Detroit, has a contract physician at Detroit, membership not given; at Grand Rapids, membership 150; at Muskegon, membership 200; compensation reported at about 10% of premiums received.

For membership in organizations of this class the premium collected from each member is usually \$1.00 per month. It is seen then, that the physicians' income from this class of practice is usually from \$1.00 to \$1.20 per year for each individual.

VII. A fraternal order known as the Foresters of America, in each locality where established, employs a lodge physician as part of its plan of organization. He is paid from 80 cents to \$1.50 a year per member. They are reported as having a membership as follows:

Battle Creek .....	150
Marine City .....	150
Pontiac .....	1,400
Traverse City .....	500
Bay City .....	600
Lansing .....	400
Menominee .....	35

VIII. The Fraternal Order of Eagles provides in its constitution for the employment of an Aerie Physician in each of its subordinate lodges.

The Fraternal Order of Eagles, as reported from a reliable source, has an approximate membership in Michigan of 5,000. A Subordinate Lodge has been established in nearly every city sending in a report to this committee.

Lansing and Bay City report a membership of 500 each, Jackson, Owosso, Pontiac, Iron Mountain and Benton Harbor report memberships of from 200 to 300. Grand Rapids, Detroit and Kalamazoo furnish no report on the membership. Some of the smaller cities report memberships varying from 50 to 200. A very few subordinate lodges have changed the provisions of the constitution so that the Aerie Physician receives a different compensation than that specified. Notably in Albion, where although an Aerie Physician is appointed, it is provided that he receive compen-



sation according to the fees prevailing among the practitioners of that city.

To show how contract services for lodges and for sick and accident companies may play an important part in the ethical and economical conditions affecting the profession in a community, the committee would report the conditions in the cities of Battle Creek and Jackson:

#### BATTLE CREEK.

Organization.	Membership.
Phoenix .....	250
U. S. Health & Accident .....	245
Eagles .....	130
Foresters of America .....	150
Total .....	775

Estimating each member to represent a family of three there are directly under the influence of this form of contract practice 2,325 of Battle Creek's population of about 30,000.

#### JACKSON.

Organization.	Membership.
Phoenix .....	200
Continental Casualty .....	1,400
Grand Rapids Accident and Health....	200
Workingmen's Mutual Protective Assn.	300
Home Accident and Health.....	15
Eagles .....	300
German Workingmen's Relief Societies.	263
Total .....	2,678

Estimating, as before, there are directly under the influence of this form of practice 8,034 of the 30,000 population of Jackson.

In conclusion, your committee would call attention to certain facts brought out by correspondents in their reports to the committee:

1st. That not *all* forms of contract practice should be subject to condemnation; as for example, contract practice as carried on for certain mining corporations. From the facts obtained on this subject your committee would not feel competent to devise a system better adapted to meet conditions in mining localities.

2nd. In some communities men of unquestionable moral integrity and high standing in the profession have been, and a few seem to be yet, engaged in forms of contract practice which seem to the committee objectionable.

3rd. In most instances local societies are totally unable to control the evil without serious

danger of disruption, although a few counties, notably Marquette, Mason and Emmet, have succeeded in holding the practice in check.

It is the judgment of the committee that the State Society should take some action looking to a betterment of conditions as affecting the matter under consideration.

Very respectfully submitted,

T. S. LANGFORD,  
A. S. KIMBALL,  
H. B. GARNER,  
E. H. FLYNN,  
T. E. DE GURSE,  
Committee.

#### Report of Sub-Committee on Contract Practice.

The Committee on Contract Practice appointed me as a special committee to investigate and report on that phase of our work that has to do with the contract practice for the County Board of Poor Commissioners.

That this part of our work has been, and is at the present time, in a very unsatisfactory condition, is evidenced by the numerous suits between the supervisors and doctors in adjusting claims for services rendered the indigent poor; by the constant discussion of this subject by the county societies, and the motion that was carried at our last state meeting asking that this part of our work be investigated.

In making this investigation I have been materially aided by numerous members of the society, and especially by the secretaries of the county societies.

The questions that have been asked are:

Are the indigent poor looked after satisfactorily in your county? Is the schedule of prices, as allowed by the Board of Supervisors, satisfactory? If you have the contract system, does it give the indigent poor first-class treatment, and is the price paid what it should be?

We received reports from forty-two counties, and with three exceptions the reports indicated a very unsatisfactory condition. The exceptions were in the counties where as yet they were free from contracts, and the physicians were paid the regular fees for the services rendered, and the patients allowed to make their own choice of physicians.

Up to a few years ago, this was the plan throughout the state, and was satisfactory except



when the supervisors, in auditing the bills, felt disposed to cut them in two, and this was quite often the case. A great many supervisors seem to think that they are better judges of what the doctors should have for their services than the doctors themselves. In many of the counties the supervisors adopted a schedule of prices without consulting the physicians, far below the cost of the work. For instance, in Oakland County, a doctor drives fifteen miles and gets \$2.40. In many of the counties the doctors made a remonstrance at this unfair treatment, and many of them refused to do work for the Poor Boards, or, if they did take care of an indigent patient, did not put in a bill for it.

Report has been received from thirty-nine counties where the Poor Commissioners canvassed the doctors in the different townships and let the work to the lowest bidder. The prices paid range from \$15 to \$150 per year. The doctors in some of the townships contract to do all of the indigent work, furnish medicine, including antitoxin, take care of all smallpox cases, and examine insane indigents. We have been able to interview many of the physicians who have these contracts, and a few of them think they get pay enough for the services rendered, but the majority consider the prices paid far below what they should be. Also, the other physicians in the county who did not have the indigent contracts were doing about the same charity work as usual, for which of course they received nothing.

In some counties the competitive bidding for the work at the county house has been quite sharp; for instance, in Midland County the work last year was contracted for at \$75. A few years ago the county paid \$500 for this work.

In summing up, as was said before, we find nearly every one concerned dissatisfied with the present conditions, and they are united in saying that they would welcome any fair schedule or scheme that would tend toward respectable fees, better care of the poor, and self-respect.

It seems to me that the time has come when we should say to the supervisors of Michigan that the physicians of this state propose to have something to say about how the dependent poor shall be treated, and also something to say about what their own services are worth.

That a reform is needed in many counties in the manner in which the sick at the county houses are cared for, is known to many of us. Who but the physicians are able to take up this work and carry it to a successful issue?

It was suggested by Dr. Angus McLean, in a paper read before the State Society at Port Huron, that each county should have a small, well equipped hospital. That this is within our reach we firmly believe, if the following scheme is carried out:

One of the members of the Board of Poor Commissioners should be a physician who is a member of the county society and approved by the society. Each county society should become an incorporated body. Then it is in a position to say to the Board of Supervisors, and here we will quote from the statistics of Tuscola County, whose population is 36,000, whose largest city contains only 2,000: "You paid for the medical attendance rendered the indigent poor of the county during the last five years \$25,000, or an average of \$5,000 per year. You pay to our society \$5,000 a year, and each member of the society contracts to take care of all the indigent work that comes to him with a proper order from the supervisor." The society would soon have a respectable sum with which it could build and equip an operating room at the county house. We could then take down the sign of "County House," and put up the sign "County Hospital." The work at the hospital could be looked after by a staff of physicians from the nearest town, who, by dividing the work, or by taking it in rotation, as is done in the larger hospitals, could do it with small inconvenience. Then by establishing an ambulance service we could have hospital facilities at the door of the country practitioner, and instead of the sick being transferred in many cases hundreds of miles to reach the specialist, the specialist could come to the patient.

The idea of establishing a hospital in connection with the county house would of course not appeal to the profession in counties where they have already sufficient hospital facilities, but in such counties the fund could be devoted to other objects which benefit the profession as a whole. The details of this scheme could no doubt be worked out satisfactorily by the county societies.

In our opinion, then, we should agree that no contract practice should be entered into by an individual without the contract having the approval of the county society, and that the contract for the county work be taken by the county society as a whole, except it be in the larger cities where the county physician or city physician is supposed to devote his whole time to such work.

It can be readily seen, if this idea can be carried into effect, we would have no trouble in getting every reputable physician in the state into our society. It would eliminate what is now a very serious menace to us, and tend to promote strength and harmony. It would place us before the people as public benefactors rather than as so many dollar chasers, and, above all, we would maintain self-respect.

(Signed) A. L. SEELEY.

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### THE SECRETARY OF A COUNTY MEDICAL SOCIETY

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J. B. DONALDSON, M. D.

Secretary of the Washington County (Pennsylvania) Medical Society.

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*(Reprinted from the Pennsylvania Medical Journal, December, 1906.)*

Show me your secretary, and I will tell you whether your society is a success or a drag. If he is prompt, active, and energetic, the society is bound to be a good one. I firmly believe the society is just what he sees fit to make it. Let me qualify this statement; I am speaking of the rural societies, not of the counties that contain large cities where they have a committee on program, etc. I do not want to appear egotistical, and hope you will pardon me for alluding so frequently to my own society, but I know what has been done there, and know the material to do it with.

This is an age of organization, and the profession has awakened to the necessity of doing something along these lines, but the average doctor is a mighty hard man to get interested in anything, especially in a scheme that he thinks will take his time. And, again, he feels that, if Dr. So-and-So is going to run the society, he "won't play." I often have men tell me, "Well, if Dr. Blank is a specimen of your society, I want none of it in mine." Such men are rapidly becoming extinct, thank the Lord, and in a few years they will all be dead or have joined the ranks of the irregulars, where they belong. They remind me of Sam Jones' lecture in which he rips the hypocrites up the back in about this language. "You old Presbyterian brother, out there, that won't speak to your neighbor when you meet him on the road, why, the only reason you ain't in hell is because you ain't dead." And it is so. The

doctor who won't speak to his confrere is rapidly becoming extinct. The young men are not trained along these lines. Why, you and I were taught to hate a homeopath like a snake. Our professors were men of these strong likes and dislikes, and did *us* much harm by teaching it. It takes a broad man almost a life time to get such stuff out of his head.

The secretary must be a diplomat, and a busy man. To him will almost all grievances come, and it is up to him to pour oil on the troubled waters. You can generally bank on the average kicker not being very familiar with the rules of his society, and he generally writes the secretary for instruction, or for a copy of the By-Laws, for he is sure to have mislaid his copy. Answer his letter promptly, but don't hurry up the By-Laws if his point is too well taken. A little time soothes a whole lot, and he won't be quite so mad next week.

As to answering letters, a secretary should *never* allow a letter to remain over night unanswered. It is simply damnable the way the average doctor treats his correspondence. He pays about as much attention to it as he does to his prayers. He will not answer at all if it is possible to get out of it. Every secretary here will bear me out in this, I know. But for a secretary to be careless in this respect is simply unpardonable, no matter how trivial the request may appear to you. Let your work be systematic in every respect. Your notices must always come out on time. They should be neat and attractive in appearance. *Don't* send out postal card notices. You don't use postal cards in your own correspondence, and why should your society? We use a sheet, that we have printed for us at the beginning of the fiscal year, with quite a lot of information on it as a sort of letter head. These are printed on one side only, in bulk, and are used for the programs each meeting, leaving a space for writing a few lines if needed. The difference in cost is trivial, and well worth the money. Neater designs will occur to many of you, but I think the idea a good one, and I have been flattered to have men from our own and other states thank me for the idea, which they had adopted. The practitioner is a busy man. His mind is not on society work, and you must keep him posted. You can do it in this way. Tell him every month when the state society and the American Medical Association meet and where. He won't mind it from one month to the next, but keep on telling him. Tell him who the of-

ficers are, how many members you have, when you were organized, and such other information as may occur to you that every medical man should know. Keep before him all the time how a man may become a member of the society and what he gains by so doing. By and by he will absorb these things and be proud to tell his folks.

For your secretary always pick a busy man. It is a mistake to say, Dr. Blank does not have much to do, and will make a good secretary. The busy fellow is the chap you want. He does not get weary half as soon as the idle fellow, who generally does not have time to answer his letters or pay his bills. Pick a young man if you can with the requirements, but don't turn him down if he happens to be fifty and busy.

Once a society gets a good secretary keep him at it until he begins to flag, then turn *him* down. Many a good society is kept in the mediocrity rank because they don't like to hurt the old secretary's feelings. It is a mistake! Fellow secretaries, as soon as you feel that you can't keep up the pace, resign! Keep up the interest in your meetings by having a strange speaker every time. The element of curiosity helps bring some. But don't neglect bringing out the young bashful talent of your own men. Make them and everybody else think the program depends largely on them. It is easy if you get them going once. Every society has men that will surprise you if by a little urging you get them interested. Don't have *too much* on your program. "Enough is as good as a feast," and, if your men go away tired, they don't carry home with them the feeling of satisfaction that you want. If the county is a large one it may be of advantage to have one or two meetings each year in some other town than the regular meeting place, but our experience is that it does not do much good. Men get in the habit of going to a certain place and will not be pleased elsewhere.

Have an attractive place to meet. We have furnished for us by the county, in the court house, a beautiful room, adorned with portraits of our ex-presidents and noted dead.

As to the number of meetings each year, that can not be arbitrarily arranged. We meet bi-monthly now, having increased the meetings from three to six per year.

A secretary must of course never miss a meeting. Nothing short of real sickness in his family should justify his absence.

You run the risk, in taking the initiative in almost every movement that your society makes, of having the knockers say, "We have a little too much Donaldson (or whatever your name is) in our society." The only remedy for this is, like Davy Crocket, to "be sure you you are right, then go ahead." The knocker you always have with you, and he often is productive of much good in helping to keep you in bounds. Make an ally of that chap as fast as you can. Make him *particeps criminis*. He is often a good fellow (in disguise). If I were making a scientific diagnosis of his case, as a rule I would say he is suffering from dementia paranoia, or more frequently dementia praecox.

Never allow your minutes to remain unwritten twenty-four hours after a meeting. I have known minutes of county medical societies to remain unwritten for over ten years. Imagine the consternation of that secretary when called to produce the minute book; for the knocker finally got up the courage to demand it of a superannuated secretary, who should have been retired after his tenth year. You say, "Why, you expect a secretary to be immaculate!" and "Such men are impossible!" Not at all. First of all, your heart must be in the work, or don't take it. If you accept the office, put into it your whole heart, mind, and energy, and success is bound to follow. Put into it the same kind of work and brains you do in your business. Don't flag at any one point; if you do, you will make a failure. It is a pleasure to feel that you are the instrument of doing much good for your fellow doctors. The greatest pleasure of my life is to be in the society of the doctors of my community and state. About all the vacations I ever get are at the meetings of this and kindred societies, where I renew old acquaintances and form new ones that are a joy to me. And why shouldn't I enjoy these? They are the best fellows on earth; all you have to do is know them.

A secretary should never miss a meeting of his state or the national society. If possible be one of the representatives in its executive body. You will learn much as to how to deal with men. Belong to all the medical societies you can get into; attend and take part in them.

There is much that might be said as to the duties of a secretary, but it would be impossible to cover the ground in a five minute paper. To sum up the requisites of a good secretary, let me say briefly, and in conclusion, as the preachers say, use your brains, and if you don't have many, work what you have to the limit, and you will get results.

Anything will do for a president of a society, but not so as to the secretary.



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**The Etiology of Rickets.**—ESSER proposes a new theory of the etiology of rickets, based on observations made in the Bonn clinic which showed a remarkable similarity between the blood changes in habitually overfed children and children with rickets. In overfed children without gastro-intestinal disease he observed a marked leucocytosis: of 15,000, 18,000, or 20,000. On differential count the mononuclear cells were relatively increased, and myelocytes and lymphoid marrow cells observed. He also observed in most of the children a modification of the so-called "Anreth's neutrophile picture," consisting in an increase of the neutrophile cells with the lesser numbers of nucleus fragments as compared with those of the higher numbers. The same peculiarities in the leucocyte picture are to be found in rickets, and the similarity led ESSER to suppose that they might be an indication of a relation between the two conditions, especially as overfeeding is recognized as a common antecedent of rickets, while chronic gastro-intestinal diseases lead more often to atrophy, and do not present a similar blood condition. Careful inquiry into the history of all cases of rickets appearing at the Bonn clinic showed overfeeding in every one, whether breast or bottle fed. In the less common breast-fed cases the cause was usually too frequent feeding, while in the artificially fed among the poor and ignorant classes the "quieting bottle" played a great part in the over frequent and excessive feeding. The prepared starch foods seemed to have surprisingly little to do with this overfeeding, considering their wide use; the excess was almost always of milk. As evidence that these observations are not mere coincidence, due to the great prevalence of both overfeeding and rickets, ESSER cites some experiments in which he was able to produce rachitic changes in young rats by excessive feeding. His theory as to the mode of production of the bone changes is that chronic overfeeding leads to an increased formation of leucocytes, whether as a necessary aid to digestive processes, or perhaps as a protection against

poisonous products of the albumins. This leads first to an increased activity of the bone marrow, which up to a certain point is a stimulus to growth. Later, however, an insufficiency of the marrow is shown by the appearance of unripe leucocytes in the peripheral blood and a diminution of the red cells, especially in the epiphyses and the periosteum, the sites of the most rapid formation of an incomplete tissue unfitted for ossification. He does not deny the possible influence of such generally recognized factors as heredity, environment, infectious diseases, etc., which he regards as exciting causes; but says that the inheritance of bad customs of feeding plays a much greater role than inheritance of a predisposition. The well known spring increase in the number of rickets cases, as well as that in the number of the nervous affections (tetany, etc.) which are common accompaniments of rickets, he ascribes to the greater possibility of overfeeding in the winter, when acute gastro-intestinal troubles are less common.—*Munch. med. Wochenschr.*, vol. 54, p. 817.

**A New Therapeutic Serum.**—DENTSCHMANN reports briefly on a serum prepared by himself by the injection of increasing doses of yeast into animals, for which he claims remarkable results. It was prepared originally for his own use in infections of the eye, but he reports some other cases treated by colleagues, among them 21 cases of pneumonia, in more than half of which a remarkable effect is said to have been noted; either an early crisis or lowered temperature and improved general condition. He believes the serum to be suitable for the treatment of general sepsis, erysipelas, angina, skin infections, etc., and promises detailed reports on the beneficial results obtained in his own eye cases. Details as to method of preparation are not given, nor any definite theory as to the mode of action of the serum, which he seems to think increases the general resistance of the body. Doses of 3 to 4 c. c. were used, and no harmful effects observed.—*Munch. med. Wochenschr.*, vol. 54, p. 971.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**Symptomatology and Diagnosis of Acute Pancreatitis.**—The well known statement of Fitz, that "acute pancreatitis is to be expected when a previously healthy person or a sufferer from occasional attacks of indigestion is suddenly seized with a violent pain in the epigastrium, followed by nausea and collapse, and in the course of twenty-four hours by a circumscribed epigastric swelling, tympanitic or resistant, with slight elevation of temperature," still covers the main points in the diagnosis of typical cases of the disease. The only thing that might be added to this is the importance of gall-stone colic in the previous history as shown by Opie. Glycosuria, lipuria, fat and undigested muscle fibers and nuclei in the feces, when present, are of great aid in making the diagnosis, but usually the diagnosis has to be made from the clinical manifestations only.

For the basis of EGDAHL'S paper, serve 107 cases, 92 of which were operated on or came to autopsy. Fourteen of them were correctly diagnosed, as shown by the later findings. The remaining 15 cases were examined only as to symptoms, signs, and history, and consequently there will remain some doubt as to the correct diagnosis.

One of the most characteristic symptoms of onset is the pain. The epigastric region is usually the seat of the most severe pain, but this is not always the case.

In 19 cases there was a history of previous attacks that simulated pancreatitis. Seven of these were designated hepatic colic; ten were described as similar to present attack; two had had as many as three previous attacks. A large proportion of the remaining patients had had ill defined attacks of epigastric and other abdominal pains and disturbances that may or may not have been of significance. A previous history of gall-stone colic is always of importance in the diagnosis of pancreatitis.

It is believed that pancreatitis is not the invariably fatal disease that it was formerly supposed to be; but that the death rate is high is very true. Timely operative intervention has saved the lives of many of the reported recoveries. Bloodgood gives the mortality in cases without abscess formation as 66 per cent.

Next to the great pain comes the marked nausea and vomiting as the most prominent symptoms. In only a very few cases did nausea exist alone.

Abdominal distention is a marked feature, occurring in 54 out of the 107 cases.

Prostration and collapse are other prominent symptoms, occurring in a large number of cases. So extreme is the collapse and so rapid the onset in typical cases, that clinicians have been puzzled to explain its etiology.

Mention is made of tumor in 28 out of the 107 cases.

Jaundice was present in 14 out of 44 cases associated with gall-stones; and mention is made of jaundice in only seven out of 72 cases associated with other conditions than gall-stones.

Hiccough was present in six patients. Three of these were suppurative, two hemorrhagic, and one not stated.

Constipation is a far more frequent condition in all groups than diarrhea.

Increased appetite and thirst were noted in two cases. One of them was associated with glycosuria and gall-stones. Complete recovery took place in this case.

There are a great number of minor symptoms given. Among these may be mentioned pruritus, retention of urine, polyuria, pain on micturition, painful breathing, chills and sweats—each in one case.

Glycosuria, lipuria, and fatty stools are very rare occurrences; but when they do occur they are of great diagnostic importance.

The highest temperature reported in 22 cases, where temperature notes are given, was 105.8°

This was in a patient having suppurative pancreatitis secondary to boils. Four out of the 22 were normal; 12 were at 100° F. or over, only two reaching 103° F. Six were subnormal, the lowest being 96.2° F.

The average age of the patients in the gall-stone class was 41 years; of those in which the pancreatitis followed gastrointestinal disorders, 36 years.

Thirty-seven out of the 107 histories gave thorough autopsy notes. Seventeen described suppurative and twenty hemorrhagic conditions. —*Surgery, Gynecology and Obstetrics*, May, 1907.



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**Mushroom Intoxication.**—FORD has completed a study of the various forms of intoxication arising from ingestion of mushrooms. He gives the clinical symptoms that characterize the poisoning from the most common forms. His description of the different species is particularly useful.

The most common type is the "white" or "deadly Amanita," which is described as from five to seven inches in height, surmounted by an expanded top whose under surface is pure white, and upper surface varies from an amber to pale yellow. The clinical picture of poisoning from this form is typical. From six to fifteen hours after eating this fungus the patient experiences extreme abdominal pain, vomiting and diarrhea. The stools contain blood and mucus. Anuria follows. These paroxysms alternate with periods of collapse. In a few days jaundice, cyanosis, cold and clammy skin develop, terminating finally in deep coma and death. Acute cases die in 48 hours. The majority last from six to ten days. No definite line of treatment is recommended. Morphia in large doses, powerful anodynes, transfusions and salines per rectum, gastric lavage fulfill the symptomatic requirements.

"Deadly Amanita" (*Amanita muscaria*), commonly called "fly agaric," is a very large, tall mushroom with yellow and reddish-brown top. The symptoms after ingestion come on at once. These are vomiting, diarrhea, headache, ocular symptoms and unconsciousness, accompanied with violent convulsions. In fatal cases death rapidly follows. In the majority recovery is rapid because only a small quantity is eaten on account of its bitter taste.

Other forms of fungus give rise to similar symptoms. They are less common in this country, however, where the above mentioned mushrooms are the most commonly mistaken forms.—*Bulletin of the Johns Hopkins Hospital*, April, 1907.

**Calcium Chloride.**—Of the many agents employed to prevent and check hemorrhage, the calcium salts take a prominent place. Usually either the lactate or the chloride is used in from .6 to .1 gram (gr. x to xv) every four hours. The former is the more pleasant to take, it being changed to the chloride in the stomach. NETTER also uses it in urticaria, giving it over a period of eight days, interrupting it, however, every fifth day. He agrees with Lauder Brunton as to its value in acute lobar pneumonia. In these cases he finds it advantageous on account of its

influence upon the contractions of the heart, which he believes are much strengthened by its use.—*Le Bulletin Médical*, May 4, 1907.

**On the Use of Opium in Acute and Chronic Diseases.**—YEO, in beginning this interesting discussion on the use of opium, says: "If I were asked to name the best *single* test of the judgment and clinical capacity of a medical practitioner, I should reply that...it would be his skill in the use of opium...."

The author gives a complete review of the therapeutic uses of opium, pointing out especially contraindications to the drug itself and emphasizing the superiority of one preparation over others in the refined administration of this useful drug. He counsels against its use in certain hypersensitive patients with feeble hearts, where a large dose is likely to enfeeble a weak, degenerated myocardium. In such cases a cardiac stimulant should always be combined. Its use is especially deprecated by him in insomnia due to pain where the more common hypnotics together with an analgesic often serve the purpose. But for pain accompanied by spasm, such as all forms of colic give rise to, no drug equals it in efficiency. Especially is this seen in asthma, where combined with atropine its effects are at times remarkable.

YEO believes in administering opium, in cases where the seat of pain is accessible, in a form whereby it may exert a local action. Hence he recommends the use of opium liniment in a painful joint, opium wash in conjunctivitis, and opium suppositories or enemata where indicated.

He cautions against the careless administration of the forms of opium by the mouth because of the nausea oftentimes induced. In such cases the combination of laudanum and aromatic spirits of ammonia is serviceable.

The treatment of a "streaming cold" by a dose of morphine he finds most satisfactory. He combines from  $\frac{1}{4}$  to  $\frac{1}{2}$  grain with a drachm of spirits of nitrous ether, a few drachms of the solution of ammonium acetate and an ounce of camphor water. Taken at bed-time at the onset of an acute rhinitis, the attack is frequently aborted in a short time.

In respiratory conditions with acute pain, Dover's powders are preferred. Heroin, however, combined with expectorants is the most suitable in bronchial and laryngeal conditions. Codein has worked most satisfactorily in circulatory disturbances, particularly in the dyspnea and sleeplessness complicating chronic valvular insufficiencies.—*Practitioner*, May, 1907.



## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**The Diagnostic Value of Lumbar Puncture in Psychiatry.**—The results of a year's experience in this line of research work is here stated and the conclusions drawn therefrom. Because of the claims that alcoholism, as well as paresis, might produce a lymphocytosis, but little weight was at first placed upon its presence or absence.

The method of Widal and Ravant was followed, and it is believed that the albumin test should always be performed and that the albumin content may be an indicator when the cellular elements are absent.

Herpes-zoster, chorea, heat-stroke, multiple disseminated sclerosis, and mumps are all to be borne in mind as possible causes of lymphocytosis, possibly on the theory of chemical irritation, while hydrocephalus, brain tumor, uremia, as well as trauma, may likewise produce increase in the lymphocytes, probably attributable to pressure influence. "Finally, lymphocytosis bears a most direct relation to syphilitic infection, and this of all other factors plays the most important role. The intimate relationship between syphilis and diseases of the nervous system requires a most thorough investigation of this disease and the spinal fluid."

The findings in 15 syphilitic cases with well-marked secondary lesions were: Decided lymphocytosis in five, moderate in six, slight increase in one, and in only three, negative results. Some of the cases reported presented unusual difficulties—e. g., combinations of alcoholic and syphilitic history.

Puncture was made in 30 clinically clear cases of paresis, and in 22 of these, punctures were several times repeated with positive results in every instance. Jeffroy, Marie, and Duflos have pointed out that lymphocytosis is one of the earliest and most constant signs of paresis, that it appears before the memory, eye, and ataxic symptoms. A number of the reported alcoholic cases, in which lymphocytosis has been observed, it is also to be noted, are open likewise to the suspicion of being cases of paresis as well, while some other cases in which doubt existed as to diagnosis from clinical symptoms, are believed, because of the negative results of puncture, to be classed rather as alcoholic cases.

In five cases of Korsakoff's syndrome, results of puncture were negative. Several cases were examined in which there was a question of diagnosis between dementia praecox and dementia paralytica, in which puncture was helpful in settling the question at issue. Certain cases, too,

of paranoiac condition presented in the megalomania and elated expression, tremor of tongue and hands, and exaggerated knee-jerks, a confusing picture, and here lumbar puncture was called on to decide, the negative findings sustaining the diagnosis of a paranoia. In another case of marked symptoms of manic type, but in which exaggerated reflexes, marked elation, and tremors introduced some little doubt, lumbar puncture surprised with its positive findings, pointing to a diagnosis of paresis, which was sustained by later developments.

The following conclusions are formulated as a result of this research:

1. Patients should not be punctured unless they can be put to bed.

2. To be of definite value, the puncture must be repeated two or more times, at an interval of at least ten days.

3. A constant negative finding is of more value than a positive one, for it rules out the presence of brain syphilis and parasymphilitic condition.

4. In general paralysis, the lymphocytosis is a constant and early sign, and is usually with a heightened albumin content. The same can be said for tabes.

5. Lymphocytosis may occur in secondary and tertiary syphilis without clinical evidence of involvement of the nervous system, also it may occur in patients who give evidence from scars or other signs of old syphilitic infections. As a rule, the cellular increase in such cases is far behind that observed in paresis and there is very slight albumin increase. Where inflammatory brain syphilis exists albumin increase may also appear.

6. In arterio-sclerotic insanity, a positive finding points to a syphilitic process, such as softened foci following specific arterial disease. In brain tumors, a negative finding is the rule. If a positive finding occurs, a syphilitic basis for the process can be taken for granted.

7. Epilepsy shows negative findings; if otherwise, the suspicion of brain syphilis is justified.

8. Alcoholism in all its varieties gives negative results.

9. A differential diagnosis is to be made between brain abscess and meningitis, by the presence in the latter of increased cellular material.

10. It cannot be enough emphasized that the lymphocytosis presents a singular disease sign, and only after consideration of all other clinical symptoms of the disease should it be used to construe the case, etc.—J. L. Pomeroy, *Journal of Nervous and Mental Diseases*, April, 1907.

## DERMATOLOGY AND SYPHILIS.

Conducted by

A. P. BIDDLE, M. D.

**The Diagnosis of Syphilis by Serum Reactions.**—After describing the methods of application to the diagnosis of syphilis, the writer says:

It can readily be seen that this method of diagnosis can be performed only by men experienced in the finest details of serum research, and only in places with enormous hospital facilities permitting the obtaining of fresh syphilitic fetuses at frequent intervals. As the substances involved in the reaction lose their properties in a very short time, the tests can be made only when fresh material is on hand, thus restricting greatly the wide use of the procedure, but possibly in time this difficulty may be overcome. In spite of all these handicaps the method has been applied in several of the large German hospitals, with the greatest success, and in this way it has been possible to obtain evidence of the previous occurrence of syphilis in many cases of tabes, paralysis, pachymeningitis, and other parasymphilitic affections. The results so far obtained furnish support to the customary view of the relation of syphilis to many chronic nervous diseases, for Wassermann and Plaut demonstrated syphilitic antibodies in the spinal fluid of thirty-two out of forty-one paretics; and Schutze obtained positive results in eight cases of tabes in which a history of syphilis was obtainable, but negative results in four cases without a history of syphilis. In active syphilis, however, the reaction sometimes fails, and hence a negative result is not always conclusive.—Editorial, the *Journal of the American Medical Association*, June 8, 1907.)

**Protozoic Parasites of Syphilis.**—Contrary to the almost universal acceptance that we possess in the spirocheata, discovered by Schaudinn, the certain cause of syphilis, SCHUELLER adheres to his contention, based on his researches, that it is doubtful. The fact that spirochaetae, especially the one looked upon as specific by Schaudinn (*spirochaeta pallida*), can be found in all syphilitic products, and could be found by every investigator in large masses, proves in no manner that these must be the cause and the origin of syphilis. According to his investigations, spiro-

chaetae, especially the *spirochaeta pallida* and the *spirochaeta refringens* and the buccal spirochaeta, are not protozoic, but vegetable parasites. They belong to that class which are easily taken with other bacteria, penetrate everywhere and are easily disseminated.

In order to make it probable that certain specific parasites are closely related to this disease process, it is necessary that the proof be furnished that they are not only to be found in the first period of invasion but that they are present in all the different periods of syphilis and accompany them, if we are to conclude that they possess a causative influence or exert it. It is as little possible to establish this for the spirochaeta as it has been for the different bacteria formerly discovered by different authors. We cannot with certainty state that the changes in the tissues are especially under the influence of the spirochaeta.

On the other hand, there are many protozoa, belonging to the parasitic forms of sporozoa, found regularly by him at the first point of infection, in the primary sclerosis—that is, in the hard chancre—and which may be demonstrated in the canals and spaces which are directly circumscribed by the small zone of infection in such manner that their connection with the infection is apparent. According to him, the infection of syphilis depends upon and only requires the reinoculations of these sporozoic parasites, either in the schizogonic or sporogonic period of their development. Whether they have any significance or effect, or relation with carried-over spirochaetae, he does not consider at present. In any event, they seem to him to play a necessary role in the different stages and tissue changes.

According to former observations of his sporozoic parasites of syphilis in cultures and sections it is possible for them to undergo a cycle of development like schizogony (simple multiplication) and sporogony (sexual multiplication), and this may be firmly established. A still more exact parasito-pathological proving of the single stages of syphilis will, without much difficulty, lead to placing these questions in the fullest and clearest light.—*American Journal of Dermatology*, May, 1907.

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## Original Articles

### PROPRIETARY INFANT FOODS: THEIR USES AND ABUSES.

THOMAS B. COOLEY, M. D.,  
Detroit.

There has been, in the past few years, a decided and most gratifying advance in the methods of adapting fresh cow's milk to the artificial feeding of infants. Not only does the specialist understand better how to vary the proportions of the different components of the milk to meet the needs of the individual case, but the knowledge is better diffused through the ranks of the profession at large; and in America especially the general adoption of the percentage system and the establishment in the large cities of milk laboratories have made it much easier for the practitioner to put his knowledge into effect; while a more general appreciation of the dangers of dirty milk has led, on the whole, to an improvement in the average supply which makes it safer to use. Notwithstanding these, and the added fact that fresh milk, modified in some more or less simple manner to meet the digestive capacity of the infant, is the most natural, the most universally available, and by far the cheapest material for artificial feeding, the vogue of the proprietary food stares us in the face in every street

car and on every bill-board, and the popular faith in their merits confronts us most unpleasantly in our attempts at rational management of cases of difficult feeding. Without statistics to support me, I cannot venture on too definite statements, but the manufacture of these preparations is certainly a great and enormously profitable industry, nor is there any evidence that their use has been in any way diminished by the progress we have made in the scientific use of milk. Certain of the reasons for this widespread use are sufficiently obvious. The child-like faith of all of us in anything which is loudly and persistently enough advertised is a phenomenon which needs merely to be mentioned, and applies as well to proprietary foods as to patent medicines or to bogus mining stocks. Nor is it at all difficult to understand the desire of parents to avoid the expense incident to prolonged medical care of the child if they can find an apparent escape from their difficulties without it, nor can we expect them to know that what may at first seem like a broad and easy road is more than likely to have its end in a maze almost as perplexing to the physician as to themselves.

\*Read before the Wayne County Medical Society, Feb. 18, 1907.



The convenience of preparation of the dried foods as compared with the home modification of milk is also undoubtedly a factor in their popularity with the laity.

These reasons are self-evident, but they are not the only ones, and however reluctant we may be to do so, candor compels us to admit the truth of some others not especially conducive to a feeling of self-satisfaction on the part of our profession. The modification of milk has by no means been reduced to an exact science, no matter how proud we may be of our progress, and the best of the specialists will have failures in his attempts to manage difficult cases with milk alone, while, naturally enough, the less special knowledge the practitioner has the greater will be his troubles and the fewer his successes. Success, too, in many cases follows only after a more or less prolonged period of careful observation and experimentation, during which the parents' patience is sorely tried, and their confidence much shaken. Many physicians, moreover, whether from inexperience, or a yielding to the desire of the anxious parents to try this or the other "perfect food" on which the neighbor's baby has grown fat, or perhaps from real faith in the value of preparations from which they may have seen striking immediate results, are driven to the use of artificial foods when a little more patience, skill, or firmness might have brought success with the milk; and whatever the ultimate effects may be, the immediate results are often gratifying and impressive to the physician as well as to the parents. Finally, certain text-books to the contrary notwithstanding, it is in my opinion folly to deny that many of these artificial foods have a real value, and that, whether they are stumbled on accidentally by parent or physician, or ordered with a true understanding of their composition and use, some infants certainly thrive for shorter

or longer periods upon them as well as one could ask—*because* they meet some definite indication that has been overlooked or not adequately met in the milk feeding.

Now, whether or not the physician is going to use these foods, is certainly of considerable importance, if he is to feed infants, that he have a clear understanding of their nature, composition, and claims to consideration; if for no other reason in order that he may offer to parents an intelligent statement of his reasons for not using them. Our text-book writers, in their enthusiasm over milk modification, and their desire to impart their knowledge of it to the last detail, give the other foods at best but scant consideration. To say, as does one well known book, that the artificial foods are unreliable in composition and wholly useless; that there is no excuse for their employment and that the medical profession is wholly to blame for the popular belief in them, is to me fully as ridiculous as the statement of each and every manufacturer that his is the only perfect food, corresponding chemically exactly to human milk, etc. Between these two extremes are to be found scattered through various books on dietetics, pediatrics and physiological chemistry, more or less complete discussions of certain phases of the matter, which, sought out with considerable labor, pieced together and combined with one's own ideas and experiences, may give one a basis on which to deal with the question. My own failure to find anywhere what I considered an adequate presentation of the matter has led me to endeavor as well as I can, in a brief paper, to collect facts and opinions bearing on this subject and to ascertain the merits of these preparations, and the reasons for and against their use.

It is necessary to say at the start that our knowledge of infant digestion and metabolism is still far from complete

and that although the brilliant researches of Pawlow, Folin and others have added greatly to our general knowledge of these subjects, they have also served to show us how much more complicated these processes are than we once thought, and how much we still have to learn concerning the character of secretion, etc., under varying conditions; and how wide are the opportunities for individual idiosyncrasy; so that positive statements must necessarily be made with caution.

The preparations under discussion divide themselves naturally and logically into two classes—those which are designed and advertised to serve as complete foods in themselves and those meant to be added to fresh milk. The first class is to me the more interesting, though numerically probably the smaller. The foods of which it is comprised are composed essentially of dried or partially dried cow's milk, sometimes with no additions, but usually with substances such as vegetable proteid, various forms of starch, or partially or wholly malted grain. Included in it are the malted milks, such foods as the "Allenbury's" and "Nestle's," certain foreign condensed cream preparations, and I include here also the condensed milks, although they are not, strictly speaking, proprietary infant foods. Before discussing their especial characteristics I wish to state briefly what, in my opinion, are the essentials required of the food for any infant. It must, in the first place, be readily digested by the particular child, must contain in sufficient amount all the substances essential to normal metabolism, must not contain anything especially liable to injurious fermentation in the intestines; and should be of such a nature as to prepare the child ultimately for the digestion of fresh unmodified cow's milk, for satisfactory feeding from the first year on is almost impossible without this. It is not essential that, as has so long been taught, the food

should approach as closely as possible to the composition of human milk. This idea has, I believe, been the source of much error in artificial feeding.

Certain objections to the continued use of the dried milk foods are commonly made and very generally credited. These are that they are causes of scurvy and rickets, two diseases which are unfortunately too common, but of whose etiology we know as yet very little. Infantile scurvy is a disease which, like many others, becomes more common the more we know about it and the more carefully we look for it. In milder grades it is not at all rare. It is seen occasionally in infants on the breast, a little more often in those on modified raw milk, but by far the greater proportion of cases occur in children fed on milk which has been peptonized, pasteurized or sterilized, or on the dried foods, so that in general one may say that it increases in frequency the further we get from a natural fresh food. It results evidently from lack of some substance in the food which is essential to normal metabolism, and it would seem that this substance is readily affected by heat. Whatever this still unidentified substance may be, it is rational from clinical observation to conclude that it is absent or diminished in amount in food preparations which are preserved by sterilization or by desiccation. As to rickets, it is not so clear that the dried foods are directly responsible. While rickets is unquestionably a disease of metabolism, its causes are certainly more complex than those of scurvy, and it is not cured, so far as we know, by correcting any one deficiency in food. It occurs quite as well with fresh cow's milk as with the dried foods, and seems on the whole to bear more relation to feeble digestion, improper proportion of food principles, and faulty general hygiene than to artificial foods as such. Some other things commonly ascribed to the



use of proprietary foods—delayed dentition, flabby muscles, etc.—may fairly be said to result from the unwise regulation of any food, but are certainly more common with the proprietary foods, and if we cannot point to a definite lack of any important food element as their cause, the various small differences known to exist between fresh and dried milk, and the lack of flexibility in modification of the prepared foods might well be considered sufficient explanation. Unfortunately, the mischief done by the artificial foods does not always show itself in infancy. It seems fair to say that the child so fed has a lower natural resistance to bacterial infection than the one fed on fresh milk, and during adolescence many more of these children show serious defects in development. Anything like a complete treatment of this question would lead us far into the new work on immunity and the different effects of human milk, cow's milk, and the dried foods on the production of protective bodies in the infant—a subject of which as yet we know little, but concerning which it is probably safe to say that the further we get from the natural food the more will the child be deprived of natural protective influences.

As to the individual constituents of the foods. First in importance are the proteids. It is commonly stated by writers on dietetics, and I believe it to be true, that the casein of dried or partially dried milk is more readily digested and assimilated than that of the fresh milk, though the reasons are not very obvious. It is known to every one who has had occasion to work with these substances in the laboratory that mild heat and partial or complete desiccation bring about, especially in the casein, certain little understood changes, largely physical, but partly, doubtless, chemical, as a result of which, if brought back to solution with the original proportion of water, they no longer behave in the same way

toward various reagents, notably rennet. Rennet is one of the bugbears of infant feeding. It is difficult to understand its precise function in the child's digestive processes, but one end for which we always aim in the preparation of a food is to avoid the thick, firm curd that rennet is supposed to form with cow's milk. This end the evaporated foods seem to attain. It is a simple little test-tube experiment to dissolve up a portion of one of them, add it to an acidulated rennet mixture, and compare the result with that obtained with fresh milk. From the dried food is obtained only a small amount of very fine, flocculent coagulum. The susceptibility to rennet has been, therefore, greatly diminished. The importance of this to gastric digestion is readily understood, but I believe that the change goes further. It seems to me that in certain conditions, such as convalescence from acute intestinal indigestion, these dried foods are much less liable to intestinal fermentation, perhaps because the altered physical state of the casein makes it less subject to the action of bacteria. Changes in the lactalbumin we know little about, and I do not believe them to be important. With regard to any alterations in casein that may occur from the action of malt in those foods prepared with malted grain, there is a theory, handed down from the time of Liebig, and still made much of by the manufacturers and some brewers, that malt contains, in addition to diastase, a ferment, the so-called "peptase," having a certain amount of proteolytic action. While this may be so, I know of no good experimental evidence in favor of the theory, and at all events the proteolytic action must be so slight as to be of no practical importance in this connection.

The fats in these foods are commonly much less in proportion to the proteids than in the percentage modifications usually given to young infants, varying



from one-half to one and one-half times the proteid percentage, except in the condensed cream mixtures. While it is usual for the manufacturers to claim that their foods represent mother's milk exactly, or approximately in composition, I am very much inclined to think that they owe a certain amount of success to the fact that in their fat content they vary from it so far. It is becoming daily more evident that the feeding of fats to infants has been a good deal overdone, and that the effort to increase the fats to the utmost possible limit has led to many failures in feeding. This is particularly true in cases of feeble digestion, and of convalescence after acute enteritis, and although the dried milk foods are seldom given for this special reason I have no doubt that the good results obtained from their temporary use in these conditions is largely due to the low fat percentage. In most of the dried preparations the fat emulsion is not particularly well preserved, and unless the food is taken immediately after mixing, or very thoroughly shaken, a part of the fat is likely to separate out in clumps. Another part of the fat is said by some of the analysts to become "occluded," that is, to enter into some such physical combination with the proteids as not to be readily separated by the ordinary methods of analysis. We lack definite metabolism experiments as to the amount of this fat which is absorbed, but I am inclined to think that a good deal goes through unchanged. The condensed cream, or centrifugated cream preparations, serve a useful purpose abroad in increasing the fat in home modification, and Biedert's Ramogen is furthermore a thoroughly ethical preparation.

The carbohydrates in this class of foods are various. In the unsweetened condensed milks and creams there is nothing but lactose; in the sweetened preparations an amount of cane sugar

equal to the total solids in the milk is added. This very high percentage of cane sugar renders the sweetened milks theoretically undesirable for infant feeding, but in practice they are sometimes much more palatable to the child, and in many cases the excess of sugar does not seem to produce any ill results. The malted foods contain, in addition to the lactose of the milk, maltose and dextrin, and unchanged starch when the malt has not been allowed to complete its action. These malted foods all seem to be results of attempts to make a condensed form of Liebig's malt soup, which once had a great vogue in Germany, and, with some modifications introduced by Keller at the Breslau clinic, is still much used. Malt soup consists essentially of milk, flour, and malt extract cooked up together, and is unquestionably a useful food. I have already expressed my doubt as to any effect of malt on the casein, but the maltose resulting from the action on the flour, being a readily assimilable sugar, and having moreover a laxative tendency, is of considerable service in many cases, particularly where troublesome constipation is a factor. The effect of cooking with starch on the casein and lactalbumin, in partially coagulating them, and leaving them in a starchy suspension, is to make a finer curd in the stomach. The presence of maltose in the dried food would seem to be of value only for its laxative effect, and occasionally for its easy digestibility if lactose is not readily digested. Dextrin, often present in the dried goods, is a partially predigested, soluble starch, which enjoys the reputation of being a source of fat to the infant, which in a sense it probably is. It is a common observation, however, that infants who grow fat on a food low in fat and high in sugars and dextrins have a flabby, unhealthy appearance, and seldom do well for any length of time. As to the unchanged starch, it is a desirable addition

to the diet of infants after the sixth month, to prepare them for solid food later. It has been used a good deal in the form of various gruels in the diet of younger infants who suffered from colic, and on two grounds; first, that it prevents mechanically the formation of large curds in the stomach; and, second, that it protects the proteids from bacterial fermentation in the intestines. This action is not especially needed in the dried milk foods; very little starch is digested by the infant under five months, and its prolonged use is sometimes followed by chronic intestinal disturbance. It is not, therefore, a desirable addition to the food in the early months, except to meet special indications in the modification of fresh cow's milk. I have omitted from consideration here some preparations of dried peptonized or partially peptonized milk, peptones, etc., which are not especially intended for infant feeding. In general, I believe that the best of these dried milk foods are prepared from fairly clean pasteurized milk under the direction of competent chemists, and that they are fairly uniform in composition. I am very decidedly of the opinion that no one of them is fit for prolonged feeding to any infant, and that the physician who uses them for that purpose is taking chances of producing a serious disturbance of nutrition. It cannot be denied that children do occasionally flourish on them, but the percentage of failures is far higher than with modified fresh milk. With sodium citrate, whey mixtures, buttermilk, skim milk, etc., the skilful practitioner is able to meet the indications in almost every case with fresh food, and in the rare case where fresh milk modification definitely fails, the only safe and satisfactory refuge is the wet nurse. Foods of this class have their uses, however, as a temporary recourse in the convalescence from acute intestinal disturbances, in some cases of

gastric irritability (a not uncommon result in too much fat) and at times when fresh milk is not obtainable, as on ship-board. As a rule the dried foods are no better than the cheaper condensed milk, if as good; but they may be of service in meeting special conditions, and then should be selected according to their composition—those poor in fat when fat digestion is weak, etc.

#### **Foods intended to mix with fresh milk.**

There is a very large number of preparations that come under this heading, all of which are intended to meet some one or more of the common indications in the modification of milk, and they vary in popularity and success largely in accordance with how common these indications are, and how well they meet them. Those which are not intended to be cooked with the milk are not open to the general objection applicable to the milk foods, of being lacking in the anti-scorbutic element, whatever that may be. If they are mixed with a milk properly modified, with due regard to the content of the food itself, they should not contribute to the development of rickets. Most of them, however, are intended for use by the mother, without a physician's supervision, and are sent out with directions aimed to make the process as easy and simple as possible, consequently the mixture is likely to be proper only for the average, healthy child, who could get along just as well on a plain milk modification. These foods are all composed of grains or flours treated in various ways, and the essential component is the carbohydrate. It is very doubtful whether the very small amount of added proteid in such a food as Eskay's is of any importance. One group in this class is intended, when mixed with milk, to make something corresponding to the malted soups of which I have spoken before. A very widely used preparation—perhaps the most popular of all in this country—is prac-



tically nothing but a dried malt extract, containing no unchanged starch and no active enzyme. It is mixed with uncooked milk and has no virtue beyond the effects of the dextrin and maltose of which it is almost wholly composed. Others contain active malt and starch, and are intended to be cooked with milk. They would make a true malt soup. Another group is made up of more or less finely ground meals, dextrinised by baking. They contain large percentages of unchanged starch, and depend chiefly upon it for their intended action, which is to lessen the size of the curds. Still a third group consists of finely ground (sometimes by patent processes) undextrinised meals. The starches are not desirable additions to the food of the average infant, and should be used only when there is a digestive disturbance which obviously indicates them. Sodium citrate, alkali, or even common salt, will meet these same indications in most cases, and will not occasion the disturbances which may follow the giving of starch to the young infant. Detrained meals are expensive, unnecessary and often harmful additions to the food in early months. Later they serve a purpose in accustoming the child to starch, which is probably quite as well, and much more cheaply met by gruels made from grains of flour. The dextrinised meals have a use in tiding over a period when we do not wish to feed milk and yet do not desire altogether to starve the infant. As with the flours, it makes some difference in particular cases whether they are made from grains whose tendency is laxative or constipating.

There is no preparation in this class which seems in any way to be a desirable permanent addition to the food of the average young infant.

I have attempted thus briefly to present the nature of these preparations, and have endeavored to be as fair as

possible without discussing individual examples; but I confess that I may have been in some degree unjust in classing certain products together where there is a great difference in the care, cleanliness, and skill with which they are made. These points, naturally, I cannot take up here, and must leave to the persuasive manufacturer's agent. Good analyses are to be found in the recent editions of books on dietetics, while the older ones are often wrong on the fat percentage.

I wish now to consider certain misuses of these foods which seem to me to be common. Abuses by the laity perhaps need no special treatment. It is altogether too frequent that a mother tries to bring up her baby on some proprietary food on which another baby, perhaps under a physician's orders, apparently did well, and the results are usually sooner or later disastrous. Such things are, however, the result of perfectly excusable ignorance. Nurses, especially the old style of obstetric nurse, are more to blame. It seems to be so fixed a habit with many of these to put every child they get a chance at on some pet proprietary food that one might well suppose they receive a commission from the manufacturer. While this sort of a thing may be pardoned in parents, and partially excused in nurses, there is no excuse for ignorance on the part of the physician who undertakes to feed infants at all. Nevertheless, with increasing experience, I am the more convinced that the greater number of physicians who order these foods do so with little if any notion of what the indications are that they want the food to meet, or what there is in the food to meet the indications. This is certainly true of those who order the same food in almost every case, for there is no one of them that meets adequately any great variety of indications. Moreover, there are many who, having weaned a child,



for good or bad (and too often bad) reasons, will put it immediately on a proprietary food without having given fresh milk even a trial. It seems to me particularly foolish, or worse, to make anything like a regular practice of ordering any proprietary food in polyclinic work—especially those to be added to fresh milk. The dried milk foods are relatively less expensive, and are practically sterile, so that there might be some excuse for their occasional use in such a practice; but to impose upon the poor, in addition to the cost of the milk, an additional and usually wholly unnecessary expense is surely wrong; moreover, it helps to spread the idea that these things are desirable or necessary for successful artificial feeding. I have no quarrel with the physician who, under special conditions, orders a proprietary food for temporary use with a very definite idea of its composition and what he expects its constituents to accomplish, and can only disagree with him if after due and intelligent consideration he thinks best to use it as a permanent food, but I think it as wrong to use them without knowledge or discrimination as it would be to use drugs in the same way.

Another objection to the use of certain of these preparations is based on ethical considerations. It would, I suppose, be hardly fair to ask that the manufacturers of food products be held to the same standards that we exact, or try to exact, of the makers of pharmaceuticals, and a reasonable amount of proper advertising cannot be complained of. The advertising methods of certain of these manufacturers are, however, so objectionable as in my opinion to preclude the use of their products by any self-respecting physician for any but very special reasons. I think that few in the profession will disagree with me when I say that the artificial feeding of the infant, and particularly the management of all difficult cases, is properly the func-

tion of the physician. Some manufacturing firms respect this fact and confine their advertising almost wholly to the profession. Others make every effort to eliminate the physician from the field, while a third class, like certain makers of more or less notorious pharmaceutical compounds, combine legitimate representations to the profession with decidedly improper methods of general advertising. The ways of newspaper, magazine, and bill-board advertising indulged in by these people are common knowledge, but I doubt whether it is so generally known to what extent mail advertising to the laity is carried. One firm, for instance, which makes a variety of preparations other than its infant foods, and has enjoyed a very good reputation with physicians, (its foods being, by the way, among the very best on the market) keeps itself informed through clipping bureaus of all births within the territory it aims to cover, and sends to the mother in each case samples of food and a pamphlet purporting to give full instructions for infant feeding and management which is full of misleading statements, beginning with the one that these foods are a "true substitute for mother's milk." Another firm, makers of one of the most popular malted grain preparations, not only sends such a pamphlet to all the mothers, but follows it up with occasional letters, offering, if the infant is having special digestive troubles, to send directions for remedying them on receiving a description of the case. I ran across a case recently where this food had been ordered for temporary use by a physician, and the mother had been receiving such letters ever since. Surely such methods can hardly be considered reputable, and I am glad to say that there are makers of good products who do not follow them. I admit cheerfully that it is sometimes very convenient, though not really necessary, to use one of these foods, but I think that to avoid

stultifying ourselves, we should know, and should explain to parents, what they are and why we use them.

Another and very important argument against the indiscriminate use of proprietary foods is their cost. The best of the malted milks which is, I think, the cheapest of the really good dried milk foods, costs from 18 to 25 cents for the amount needed by a 10-pound baby in a day. The popular malted grain preparation referred to will cost at least 10 cents a day, in addition to the cost of the milk, for enough to make a 6% sugar modification for an infant of the same weight. This consideration, in addition to the objectionable advertising, makes it desirable to know what cheaper articles there are which meet the same indications as the proprietary preparations. Good unsweetened condensed milk, as I have said, is for most purposes as good as the dried milk foods. Fresh buttermilk, where obtainable, is of great assistance when we wish to feed little or no fat, as is also skim milk plain or treated with the lactic acid bacteria preparations, though these are not easy to use. The dried malt extracts are more expensive than the easily obtained syrupy preparations made by the brewers, and still cheaper and quite practical is it to obtain malt itself from the brewery and make a decoction of it. Malt

soups may be prepared in either of these ways. A substance not often used in infant feeding is strained honey. It contains about 70% of invert sugar, which, in addition to being really predigested, serves very much the same purposes as maltose and dextrin, and costs from 1-4 to 1-3 as much. There is a wide range of choice in the dextrinised foods regarding both composition and price. There seems to me to be so little necessity for their use, with our present knowledge of milk modification, that we need not concern ourselves with them especially. If they are to be used, it is well to know from what grains they are made. The prepared flours are not objectionable on the advertising score. There is now a considerable variety of good ones to be obtained, though only one or two are common in the market. It is cheaper, and fully as good, though less convenient, to make gruels out of the whole or broken grains by longer cooking.

This paper makes no pretense to cover all the aspects of a complex subject, but I hope that it may arouse some interest in what has seemed to me a neglected field. The way in which proprietary foods are used by the laity reflects to a degree a lack of confidence in the profession which should be a reproach to us and a convincing argument for more general study of the principles and practice of scientific infant feeding.

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A. MacLaren, St. Paul, Minn. (*Journal A. M. A.*, July 20), says the laity and even some medical men hardly realize the ever present danger of leaving foreign bodies within the peritoneal cavity. He doubts whether any of the many methods recommended to avoid this danger is as good as the use of the present five or ten yard gauze sponge which he trusts is now used by every one for the abdominal tamponade. The use of the long-handled hemostatic forceps also materially decreases the danger and they should always be used in preference to small forceps. The peritoneum has developed a hitherto unknown property of forcing foreign bodies into the intestine, since the sterilized gauze sponge has generally replaced the sea sponge formerly used and he reports two cases of his own observation, in one

of which a piece of gauze was passed through the rectum, another in which a forceps was found entirely within the small intestine. One other case also reported of death following the leaving of a tape sponge in the abdomen. He refers to a conversation with Dr. Maurice Richardson in which the latter said that he had on several occasions removed foreign bodies left in previous laparotomies by other surgeons, and to the best of his knowledge the patients were never informed of the facts. We are all aware, MacLaren says, that this excellent rule is not always followed by surgeons of equal standing. In conclusion he mentions some experience he has had with catgut sutures in appendectomy which has convinced him of the danger of such material for intestinal suture when used alone.



## THE TREATMENT OF ARTHRITIS BY LOCALIZED PASSIVE HYPEREMIA (BIER'S STASIS)\*

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FRANK SMITHIES, M. D.,

Instructor in Medicine, University of Michigan, Ann Arbor.

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(From the Clinic of Internal Medicine,  
University Hospital.)

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Hyperemia is increase of blood to a part. It may be local or general. Either form may be active or arterial; passive or venous or mixed. In any event, the results are increased vascularity, more blood cells and greater fluid content in the parts involved. Relief of any form of hyperemia is followed by more or less rapid relief of the congestion of vascular and peri-vascular structures. When peri-vascular structures are relieved, we say that "absorption" has taken place. Formerly, this was thought to take place through the lymphatics. It has lately been shown that it takes place through the capillaries, and, of these, the venous radicles play the greater part. Obstruction to the venous circulation causes, primarily, more engorgement to any part than does excess of arterial inflow. This passive stasis, if long maintained, brings about the deleterious condition known as edema; if maintained for a shorter time, it is followed by increased arterial inflow and greater absorption. It has then, a favorable influence upon the affected areas, inasmuch as the progress of any tissue normally, or, if pathological, towards the normal, depends upon its nutrition, and this nutrition is maintained by corpuscular elements and serum. The more of these elements carried to a

given part in a given time, the greater the exchange of tissue-building material and the carrying off of waste products. In case of infective processes, more protective bodies are available.

As a therapeutic measure, the beneficial effects of excess of blood to a part have been long known. Animals suck their wounds with resultant rapid healing. The ancients used hot cauteries with free hand. Hippocrates speaks favorably of the hot bath. A long list of those engaged in the healing art, testifies to the benefits derived from hot packs, compresses, poultices, and irritant medicinal applications. These are all measures for promoting active or arterial hyperemia.

Definite knowledge of the value of venous or passive hyperemia has but recently become known. It remained for Prof. A. Bier, of Griefswald, Germany, to demonstrate the importance of passive stasis. With Rokitsansky, he had noticed that pulmonary tuberculosis rarely occurred in connection with disease of the mitral valve. This appeared to be especially true of stenosis. On the other hand, when stenosis of the pulmonary semi-lunars was present, a very large percentage of the cases were affected with pulmonary tuberculosis. The backing-up of blood in left-sided lesions, with resultant congestion of the lungs,

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appeared in some way to exert a protective influence. Bier began to make observations on cases in which he pro-

Bier noted rapid relief from pain, lessening of joint stiffness, marked decrease in inflammatory reaction, and healing in



FIG. 1—Arrangement of supporting and protective bandages previous to application of constriction bandage, for passive hyperemia of knee joint.

duced artificially, and usually, locally, venous stasis. He effected the stasis by means of constricting bandages, applied proximally to the part that he

a very short time. The artificial retardation of the circulation appeared to render less harmful the bacteria and their products. The excess of nutriment con-



FIG. 2—Incorrect method of applying rubber constriction bandage—i. e., as Esmarch in amputations.

wished to treat. His first cases were patients affected with various forms of joint tuberculosis. In many of them

stantly at hand did much to prevent necroses. The physiological action of the healing factors at work brought

about the greatest good with the least disturbance of tissue function. Just how the process was effective, Bier could not entirely explain. He ventured to point out that the relief from pain might easily result from the congestion of the irritated nerve endings by the abundant exudates—as in Schleich's method of infiltration anesthesia. The bactericidal effects of the localized congestion have been explained in many ways. Dilution of the toxins; increase in the carbonic acid and the alkalis in the blood and lymph in the part being treated, increase in the number of leukocytes in the part, with increase in the alexins and greater

scope of his work, and at present, a large experience testifies to the efficacy of the method in the treatment of both chronic and acute pathological processes, whether these be infectious or non-infectious. The different pathological conditions are, however, managed by varying the method of applying the constricting bandages.

In our experience, passive hyperemia has proven a valuable adjunct to the therapy of many inflammatory conditions. We wish to speak briefly of the results achieved in cases of arthritis. Before mentioning specific cases, it may be advisable to review certain facts con-



FIG. 3.—Correct method for applying rubber constriction bandage—i. e., as ordinary roller-bandage is applied.

phagocytosis were all thought, variously, to be factors at work. More recently, increased opsonic power of the serum, in the congested area, has been suggested.

Bier used his method for some ten years before making known his results. In that time, he had tested its efficacy on almost all forms of bone and joint disease. In 1903 he published the results of his findings. Up to that time, he had employed the localized hyperemia largely for chronic processes,—infective and non-infective. More recently, he with other workers, has enlarged the

cerning the application of the method.

#### Materials Needed.

Venous hyperemia is produced only by constriction. On that account, it can be produced only in the extremities, and, to a certain extent, in the head. Partial or mixed hyperemia is produced by means of specially devised, cup-like vessels, provided with an arrangement whereby vacua may be produced at will in such vessels. A suction is thus established.

For constriction, we have found that bandages of strong, rubber-tissue are the most serviceable. They vary in width,

from one to three inches, and in length, from one to three feet. They are easily applied, produce an adequate degree of constriction, and are reasonably cheap. Bandages of rubber-webbing are sometimes used. They are more expensive than are those of tissue, and do not appear to have any additional advantages beyond, perhaps, greater durability. We have found that the constricting bandages could be better applied and better kept in position by fixing a strip of ordinary cotton-roller at one end of the rubber strip. This can be wrapped about the limb as an ordinary roller after the constricting bandage has been applied.

applied. The leg is now ready for the application of the constricting bandage. This should not be put on as one uses an Esmarch for constriction in amputations. This causes too much constriction, and it is impossible to get the bandage applied with perfect smoothness. It is best to apply the rubber bandage just as one applies an ordinary roller. When applied, there should be no wrinkles in the bandage, nor should the patient complain of discomfort from it. The degree of constriction varies with the kind of process being treated. In general, in chronic and sub-acute conditions, moderate constriction is main-



FIG. 4.—Appearance of leg and bandages when proper technique has been carried out.

### Method of Application.

This varies somewhat with the location of the part in which localized stasis is to be brought about. We will consider that the knee-joint is to be treated. It is best to have the patient in bed, or if not in bed, to have the leg slightly elevated. To support the peripheral circulation, and to better localize the stasis, a moderately stout cotton roller is applied to the foot and leg from below upwards. It should fit fairly snugly, and should be carried almost to the knee. Proximal to the joint, a few turns of soft gauze bandage are applied loosely. This is for the purpose of protecting the part over which the rubber-bandage is to be

tained for short periods. In acute processes, mild constriction is maintained for many hours. In any event, the degree is to be judged entirely by the nature of the case.

### The Bandage is Properly Applied When :

- (a) There is no pain caused by the constricting band, either locally or beyond the area involved.
- (b) The congested area feels warm to the hand.
- (c) The arterial pulse can be felt beyond the constriction.
- (d) The congested area is uniformly purplish blue—in cases where the constriction is to be maintained for an hour



or two, viz.: chronic affections—and diffuse, fiery-red in acute affections where mild constriction is to be long maintained.

(e) There is no pain in the congested area, no loss of sensation, no numbness distally.

(f) Edema, as shown by pitting on pressure, does not occur.

#### Errors in technique consist in:

a) The use of other than elastic bandages for constriction, with injury to the soft parts, and perhaps, blood-vessels. (The constricting bandages may be too narrow or of very strong material.)

(b) Failure to properly protect the

#### The time element and its importance.

One must realize at the outset that no definite rules can be laid down for the application of passive hyperemia. Each patient is to be considered as a separate problem. What may be therapeutically efficient for one patient, may be injurious for another. In general, we may say that chronic affections—as arthritis deformans, joint tuberculosis, chronic rheumatism, etc.—require fairly strong constriction maintained for from one-half to two or three hours. It is best to begin by maintaining the stasis for a short time, and gradually increasing the period. In acute affections:—acute gon-



FIG. 5—Constriction bandage improperly applied—too tight and wrinkled. (Note oedematous condition of knee and dilated veins.)

underlying tissues by the application of the preliminary gauze roller.

(c) Failure to apply peripherally to the area in which localized hyperemia is desired, the supporting cotton roller. This may be applied too firmly.

(d) Improper position of the part. The limb should be fully extended, and should be slightly elevated, or at least level. It must never be allowed to hang down.

(e) Failure to appreciate the condition to be treated, with resultant improper degree of constriction, or the maintenance of the constriction for too long or too short a time.

orrheal arthritis, rheumatic fever, sprains—the constriction should be mild, and maintained constantly for from ten to twenty hours—or almost continuously for many days. In these cases, the tendency appears to be towards not maintaining the stasis sufficiently long. The first application of the bandages must always be made by a competent attendant. Under no circumstances must the work be done entirely by the patient. Competent supervision is necessary to insure success. Any other method than this will lead to failure, loss of faith in the procedure, and sometimes injury to the patient. I find that this is not al-

ways appreciated, either by doctor or patient. Patients frequently feel that they themselves are able to gauge the degree of constriction and the time of its maintenance. Many feel that if a little stasis is a good thing, then so simple and so cheap a remedy can surely be used with freer hand than the physician is willing to allow. This always leads to unsatisfactory results.

#### After-treatment.

At the expiration of the proper period of constriction, the bandages are removed, and in chronic and sub-acute cases, the part is immediately massaged with warm olive oil. This aids in the

ingly rapid. It is usually dependent upon the time that the constriction is maintained, and its degree. Freedom from pain may be permanent. Its recurrence is frequently an indication for a longer maintenance of the stasis.

(b) Decrease in the local inflammatory signs, as shown by decrease in swelling, in tenderness, in temperature and by increase in range and ease of motion in the joint. These effects are frequently permanent, provided the stasis is properly maintained. In cases of effusion into joint capsules we have seen the entire effusion absorbed in a day or two.

(c) Increase in movement, with decrease in crepitus. In cases of arthritis



FIG. 6—Appearance of knee after stasis has been maintained for two hours. (Note absence of ecchymoses, or dilated veins.)

active arterial hyperemia which supervenes. The massage should be from the periphery. In acute cases, if performed at all, it should be very gentle. In chronic cases, the massage can be combined with passive movements. After the massage—which should be persisted in for about fifteen minutes—the affected part should be wrapped in cotton, slightly elevated and kept quiet for an hour.

#### Beneficial effects of stasis.

(a) Relief of pain in the joint. This is especially the case in acute processes—rheumatism, gonorrheal arthritis, bursitis, sprains. It is frequently astonish-

ing deformans and chronic articular rheumatism, this is often strikingly apparent. In some cases, it seems that actual absorption of exuberant processes takes place.

(d) Decrease in the discharge in cases of tuberculosis. In many instances, this is followed by rapid closure of sinuses, with complete healing.

(e) Disappearance of muscle and tendon soreness and stiffness. This applies to both acute and chronic processes.

#### Deleterious effects of stasis.

These usually result from improper application of the constriction or its

maintenance for too long a period. Failure to appreciate the physical condition of the patient is responsible for some of the untoward effects. Gangrene has been the result, with some operators, due to strong constriction, or constriction whose time of maintenance was left to the patient. This has been especially so in cases of diabetes. In anemic individuals, we have seen troublesome edema persist for some days after but shortly maintained stasis. Severe peripheral neuritis occasionally follows prolonged treatment of chronic joints. Temporary loss of sensation may sometimes be noted. Moderate cutaneous ecchymoses may follow and persist for some time.

pulmonary tuberculosis; carcinoma, pernicious or severe simple anemia, etc.

(e) Old age, childhood and infancy.

(f) Acute infectious processes, with much free pus.

#### Indications for the use of passive stasis.

This method should not be considered in the nature of a "cure-all." It simply offers a most valuable adjunct to the treatment of those conditions where medication has been shown to be of little value; where surgical interference is refused or deemed unwise; where other measures have given unsatisfactory results. Combined with routine measures of treatment—rest, massage, diet, passive



FIG. 7.—Appearance of knee a few minutes after constriction bandage and accessory bandages have been removed. (Note rapid return of proper circulation in part being treated.)

In cases which are acutely infectious, with much pus, a general infection may follow stasis. Sometimes one sees cases in which the resistance of the tissues appears to be permanently lowered and the pathologic process spreads. In these cases, there has been, usually, some error in technique.

#### Contraindications to the use of passive stasis.

(a) Extensive arterio-sclerosis; chronic cardiac affections.

(b) Chronic nephritis; amyloid disease.

(c) Diabetes.

(d) Severe cachexia—from chronic

movements, baths, etc.—it has, in our experience, proven of great service. The following cases show some of the conditions in which the exhibition of passive stasis has resulted in benefit to the patients:

Case 1.—Student, male, aged 21. *Diagnosis:* *Acute, specific (?) arthritis of left ankle.* Patient cannot walk on account of pain, swelling, and tenderness in ankle joint. Examination reveals redness, edema of moderate extent, limited motion, extreme tenderness. Moderate stasis applied for several hours. Relief of pain almost immediate; swelling had entirely disappeared in two days; range of motion greatly increased; tenderness much decreased. Stasis was then applied for two hours, twice daily and patient kept



off his feet. Complete recovery in three weeks. No recurrence after six months.

Case 2.—Male, farmer, aged 40. *Diagnosis: Chronic, progressive, arthritis deformans*, involving both ankles, knees, slightly, both hands and wrists, both elbows, both shoulders, slightly. (History of gonorrhea nine years previous to patient's entering hospital.) All motions in joints involved markedly limited. Patient cannot dress without assistance. Moderate edema, tenderness and pain on movement in involved joints. Bier's stasis applied successively for one hour, with moderate constriction, twice daily. In three days, pain on movement, swelling, tenderness on pressure had disappeared. Motion had become rather freer. Time of constriction was gradually increased to two hours, twice daily. Patient was discharged, improved in every way, at the end of three weeks. In all joints treated, motion was greater, pain had disappeared, there was no tenderness, no crepitus. The patient could dress himself, and showed marked improvement in his walking.

Case 3.—Male, student, aged 19. *Diagnosis: Acute, gonorrheal arthritis*, affecting both knees; marked effusion. Patient comes to hospital on crutches. Knees greatly swollen; joint capsule very much distended with fluid, very painful to touch. Motion greatly limited, and extremely painful. Local temperature elevated. Treatment: Exploratory aspiration both knee joint capsules; Bier's stasis, with mild constriction for several hours, twice daily; rest in bed. Patient improved steadily; edema disappeared from joint in four days; pain disappeared in a few hours, but recurred when bandages were removed. In a week's time, swelling had almost left, there was no pain on movement; movement was almost normal; there was but slight tenderness on pressure. The time of stasis was increased to four hours twice daily, but this resulted in return of some of the effusion into the joint capsule. Stasis was discontinued, and the joint baked in an electric oven. The edema disappeared in two or three days. The patient then felt so well that, against orders, he walked about. Effusion returned, but disappeared with application of mild constriction for two hours twice a day. This happened several times. Patient was discharged at the end of nine weeks apparently cured. Writes that since leaving the hospital, he has had no return of the trouble.

Case 4.—Male, farmer, aged 25. *Diagnosis: Sub-acute, gonorrheal arthritis*, both ankles. Affected joints moderately swollen, motion limited, slight crepitus. Patient walks with great difficulty. Treatment: Rest, elevation; passive stasis for two hours twice daily, with moderate constriction. Pain had disappeared within twenty-four hours; swelling was absent at the end of four days; motion in all directions gradually became much freer. Patient left at the end of the eleventh day of treatment. He was able to get about much better, had no pain on doing so. There was slight swelling of the soft parts about the ankles, on account of his being on his feet for last two days in hospital, against advice.

Case 5.—Female, aged 28. *Diagnosis: Chronic, progressive arthritis deformans*, of high degree, involving almost every joint, especially the ankles, knees, hips, fingers, wrists, elbows. Marked tenderness, swelling, limited motion, crepitus over all joints, particularly ankles, knees, elbows, fingers. Patient cannot move about in bed, unaided; cannot feed herself, cannot hold articles in fingers. Is much emaciated and moderately anemic. Patient treated by passive hyperemia, beginning with moderate constriction for one hour, twice daily; arsenic exhibited. Pain and swelling had all disappeared at the end of one week; motion had become rather freer and less crepitus was noted. Patient was able to feed herself and could turn in bed. At the end of a month, there was no pain or joint tenderness whatever; the patient could sit up in a chair, could comb her hair; all movements had increased more than 25 per cent. In this case, persistent edema of the left ankle occurred after stasis had been regularly continued a month. It was relieved by baking the involved parts, and leaving off the bandage for a week. After the first month, the time of application of the constricting bandages was increased to two hours twice daily, with evident benefit to the patient. At the end of four months, the patient was discharged at her own request. She could almost stand alone, could get about very well in a roller-chair, could sew, knit, make her toilet, feed herself, and take a bath without assistance. There was no joint swelling or tenderness, and in the case of the knee and elbow joints, movement had been increased at least 50 per cent.

Case 6.—Male, salesman, aged 56. *Diagnosis: Chronic Arthritis deformans—tuberculous?—left*

knee, with *mild arthritis*—tuberculous?—both shoulder joints; “floating cartilage” in left knee joint. There is great swelling, tenderness, limited motion, crepitus of left knee. Treatment: Rest, elevation; removal of loose cartilage; passive hyperemia of left knee for two hours twice daily; shoulders baked. Patient made a slow but gradual recovery. Removal of the loose cartilage caused some acute symptoms in knee, but they were removed by application of stasis. Patient left hospital able to walk very well with aid of cane, and fairly well without the cane. There was slight flexion of the left leg at the knee. Patient could move leg very freely; there was no tenderness or swelling; there was only slight edema about the knee after the patient had walked about for several hours.

My thanks are due to Prof. Dock for many suggestions, and to Mr. A. A. Hale for the excellent photographs.

### DISCUSSION.

Dr. A. W. Hornbogen, Marquette, said he had used the method in a great variety of cases. He had found it especially useful in wounds of the extremities. In a case of compound comminuted fracture he applied the treatment and converted it into a simple fracture. In cases of felon and streptococcus infection of the fingers it is a great aid. He advised a cautious use at

first where bone is seriously damaged

He said that five weeks ago he was at death's door from septic infection contracted during an operation. He believes that Bier's treatment saved his life.

Dr. George Dock, Ann Arbor, said that in Bier's method we have one of the most useful aids in the treatment of chronic joint affections.

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Graham Lusk, New York City (*Journal A. M. A.*, July 20), calls attention to the importance of a correct understanding by physicans of the food requirements of the body, especially the proteid and fuel requirements. He points out the false claims made for the advertised breakfast foods, the merits of which lie in their flavors and not in their exaggerated nutritious value. The various malt extracts are also mentioned as well as the peptone preparations, which consist chiefly of albumoses which are liable to cause diarrhea, and the liquid peptonoids which contain a considerable quantity of alcohol and only about 25 grams of proteid to the pint bottle. It is said that many patients have died of proteid starvation through the ill advised administration of these prepara-

tions. If used as a flavor or stimulant their limitations should be fully recognized.

Previous experiments by R. Hunt, Washington, D. C. (*Journal A. M. A.*, July 20), demonstrated marked resistance to acetonitrile on the part of mice when fed on small amounts of thyroid. Further studies show that this is an exceedingly delicate test for thyroid. It has been possible to detect as little as one milligram of thyroid. It seems probable that this test will throw light on the question whether there is an excess of thyroid secretion in the blood in exophthalmic goiter. Two series of experiments are described showing the effect of feeding blood from an individual having an exophthalmic goiter.



## THE FUTURE HYGIENE\*

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MORTIMER WILLSON, M. D.,

Port Huron.

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Thousands of trained experimenters in physiology and pathology are working diligently to find out the laws that govern the biochemical reactions of the tissues and blood of the human body. The blood plasma which was once regarded as simply a menstruum to convey the blood cells, is now known to be a most complex substance, containing elements of the utmost importance to the maintenance of that balance of action and reaction which we call health.

If we simply mention serum therapy, the mind runs over a realm so extensive, and so unexplored in great areas, that we are bewildered by the achievements already made, and by the promise of future triumphs. Immunity vaccines are multiplying, the protozoan factors of disease are being brought to light, and the possibility of their destruction by medicines or curative sera is being vigorously investigated.

In these labors and triumphs we all rejoice from afar. They are to be done by specialists trained in the details of laboratory work, and are not for us who on the firing line must fight disease and beat back the hosts of destruction with the best arms at our command. Thankful will we be if these experts can give us more effective weapons. Who that has seen the advancing membrane of diphtheria halt and recede before the onslaught of 5000 units of antitoxine, has not blessed the name of the men whose studies in the laboratory and the hospital

clinic gave this most potent weapon into the hands of the most humble private in that army whose "far flung battle line," by day and by night, in the city and in the cabin of the wilderness, fights the grandest battle ever waged by man for man. We know that young men now coming to the front will be better armed and better drilled than men were when we took our places in the ranks, and in this we rejoice. Before they shall answer the last call, I believe that the two great bulwarks of disease, cancer and consumption, which have seemingly withstood all our assaults, will have been captured by their labors.

Though we of the rank and file can not do expert biological and bacteriological work, there is a field of labor as important and as vast in which each and every one can labor for the augmentation of the sum of human happiness. I refer to the education of the people and their state and national representatives in preventive medicine and hygiene. Every physician should be a teacher of the people along these lines. Every county society should declare itself plainly in favor of better lines of living for all. Every newspaper is full of misleading matter on medical subjects and health, and we never utter a word through the press to correct these errors. These false statements we look upon as too absurd to discuss, but we must remember that to a great many they are taken as gospel truth.

I have never yet seen a newspaper editorial on a medical subject that was

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\*Read before the Lapeer County Medical Society, April 10, 1907.



not full of errors and ludicrous blunders, nor a medical subject handled by a reporter that would not cause a laugh on account of its absurdity in any class of freshmen medics. Yet no one raises his voice to correct these errors and the people live on in ignorance. On every fence and old barn throughout the country and in all street cars and on all bill-boards in the city the patent medicine man pleads with the public to take a physic, but we say never a word to warn them of the baleful effects of depending on cathartics for elimination.

The patent double digested and machine masticated food ads. are filled with the most harmful misinformation, and these fakes are getting millions from the sowing of fears in the minds of the ignorant, and the ignorant of medical and hygienic laws are almost as numerous as the population outside our profession. And we say nothing to educate the people.

I think it the duty of every county society to publish at least once a month some paper on hygiene and the patent medicine and patent food evils. These papers should be read before the society and thoroughly discussed, altered if need be to secure the consensus of opinion of the society, and then given to the public, not as the opinion of any one doctor but as the declaration of the county society.

There are plenty of subjects on which the public ought to be informed. Personal hygiene, the proper construction of houses, sleeping apartments, the care of the sources of drinking water, sanitary clothing, proper construction of school houses, inspection of school children, the necessity of quarantine in contagious disease, the guarding of foods from impurities and bacteria, simple tests for milk and meats, the sanitary disposal of garbage and sewerage in the cities.

On all these subjects the public needs information and needs it reiterated again and again. The county society is the

proper teacher, knowing local conditions better than an outsider, and likewise having the confidence of the people whom they would instruct.

Take the matter of house hygiene. How many houses in your community have damp and mouldy spaces unventilated between the floor and the ground. Where mould will grow, other fungi, as the cocci and bacteria, will also breed. We have not yet by any means identified all the pathogenic germs, and many an obscure disorder is due to yet unknown microbes, which breed in these dark spaces below so many dwellings and thence invade the illy ventilated living and sleeping rooms above. All people in the future must know the dangers to **well-being and health** that lurk in such places.

How much sickness is caused by polluted milk we all know. When the milk is produced on the place the people should be taught how to keep it clean, by having clean stables for the cows, by proper grooming of them, and how best to keep it from contamination after it reaches the house. I have seen milk in uncovered pans in a vegetable cellar. This should never be allowed.

How can water on the farm be secured from contamination? That is worthy of your study. The usual precautions, as placing the wells far from any stables or outhouses, would seem to be so obvious that all people would follow the plan, and yet there are thousands who utterly disregard them. Of course, besides this matter of location, if it is not a driven well reaching into the rock, it should be cemented to within a few feet of the bottom and up above the surface so far as to preclude the possibility of surface water even in heavy rains gaining access to the well. Many a person has lost his life from typhoid by being infected from the family well, just because surface water gained admission to it. Then in the future it will be thought an economy by

the educated farmer to have a bacteriological examination of his well made by the qualified county bacteriologist. As a further precaution, instead of the present system in vogue in the country, dry closets will be used and the nitrogenous waste returned to the soil again.

Then, as to the water supply of our cities, soon the utterly barbarous method of turning our sewerages into the rivers, to poison the dwellers down stream, will be abolished. The state will prohibit the contamination of all streams by sewerage or factory waste.

When one thinks of the present system and knows how many lives are yearly sacrificed by it, one can hardly realize that we are not living in antediluvian times. This thing must be agitated by the medical profession in its capacity as teacher of hygiene until radical laws against such practices are adopted. Every city should be compelled to take care of its own garbage by cremation or otherwise and to return its sewage to the land again. No city has a right to poison other communities down stream. The thing must be stopped. Detroit has always more or less typhoid fever; Marine City nearly always has some cases; St. Clair has greatly improved since they put their intake pipe on the sand bar in the middle of the river. Port Huron has a few cases. There is, as a rule, an increasing number per thousand inhabitants as you go down stream from the foot of Lake Huron.

You may talk of the purifying action of running water, but some germs are bound to survive. At Newport, five miles down the shore from the mouth of the city sewers, typhoid germs were found in the oysters taken at that point. Sporadic cases of typhoid whose source of infection can not be found may have come from such sewer-contaminated oyster beds. Even the bays of the ocean should be protected from pollution. The

breeding grounds of oysters, clams and scallops, if they are to continue to be used as food, must be protected from sewage, for from infected shell-fish doubtless many a case of typhoid has had its origin. When the shores of our rivers are inspected by sanitary officers, and all sources of contamination abolished, our wells protected from surface water, our cities compelled to take care of their own garbage and to return the sewage to the soil, much sickness and death will be avoided and the increase in our land products will largely compensate for the money expended in keeping our rivers pure.

Let me speak for a few minutes on another of the topics enumerated above, namely the medical inspection of our schools. Besides the subjects of heating, lighting and ventilating, all of which should have been well and closely considered in the construction of the school house, there remains the need of inspection to prevent the spread of contagious disease. Of course the teacher can; when she observes that a child is heavy-eyed or flushed with fever, send it home with a note advising the parent to call the family physician. If there is a suspicion on the part of the parents that the child may have a contagious disease and the home may be quarantined, it is more than likely that they will not call a physician and the case will, as far as possible, be concealed and unreported. With a medical inspector armed with proper authority, when suspicion of a communicable disease exists, he should be empowered to attach a warning card to the house and of himself notify the family physician to call and watch the case.

But medical inspection is needed not only in cases of contagious diseases, but also for many other ailments. Here is a child who is habitually behind in his work. He is always having headaches and is frequently excused from school. Inspection shows that his eyes are de-



fective and that he does not learn because he can not see plainly, and the eye strain necessary to do his appointed tasks, causes that dull, tired ache of the head and often reflex stomach disturbances. Here is a boy who is dull and inattentive with a stupid face and his mouth wide open. He does not learn and cares little whether he does or not. Adenoids the inspector says, and his parent is advised to have them removed. Then the stupid boy wakes up, takes an interest in his study and brings his record card home with pride for his mother to sign.

How much could be done along these lines that remains undone, how much not only of physical but of mental suffering and childish discouragement and heart-break could be avoided by a competent inspector of our schools. The county society must educate the people up to it.

I have not time nor am I competent to discuss all the topics which properly come under hygiene and preventive medicine, but there is one more subject I wish briefly to consider before closing, and that is marriage. On this subject the public needs the instruction obtainable only from our profession. A ship is not allowed to leave port without a clean bill of health, but the young are allowed to embark on the sea of matrimony no matter what death-dealing and misery-producing disease they may have on board.

In this, the most important step in young peoples lives, in which they need most to be educated, they and the public are most impatient of instruction or regulation. All literature, especially the modern society novel, has taught that in this fateful epoch in life only sentiment should have a voice, while reason and knowledge and prudence should be silent.

You have known many cases where marriage should have been forbidden on account of some serious disease or men-

tal defect in one or both of the parties. Often we have been tempted to go to the healthy one and warn him or her of the dark future, if marriage is contracted with a diseased partner. As a rule we have been silent and the mischief has been done. Imperfect and diseased offspring have come to lead their puny and imperfect lives, to be a burden to society, to sink into untimely graves. If we should go to these young people, and attempt to instruct them as to their duty in the matter, we should be told that we were meddling with strictly private affairs. It is not a strictly private affair. The public is vastly interested in the health, physical, mental and moral, of those who are born into its ranks. Millions of money are spent annually by that public to care for the incompetent and the defective. So great is this burden on society, that some students of social conditions have openly advocated the removal by euthanasia of the hopelessly diseased or crippled, the imbecile, the hopelessly insane and the chronic criminal. McKim in his "Heredity and Human Progress" strongly advocates this method of solving this most difficult problem. This is surely cutting and not untying the Gordian Knot, and there is not the slightest prospect of this method being adopted, though a bill authorizing such a disposition of the defective classes was, only a year or two ago, introduced into the Ohio legislature.

What is more practical and less repugnant to our nature, is the prohibition of marriages where either one or the other of the parties thereto is such a physical, mental, or moral defective as to be likely to produce offspring who shall be either a burden or a menace to society.

Prevention of evils to the individual and to society, rather than cure, is the program among physicians and sociologists for the great battle of the twentieth century. Make the stream of life pure at its fountain head as far as possible.



Educate the public along true lines of actual knowledge. Disabuse the mind of the old mysticism concerning disease and the cure of disease. Teach people that it is not God who, as a penalty for lack of piety or moral sin, visits their households with typhoid, but that their ignorance or carelessness is directly responsible for the sickness. They must come to realize that piety and prayer without fresh air, pure food, and water and sunshine, are of no avail in curing or preventing sickness; that there is no mysticism in medicine, that force and superstition are not natural allies, that they must discard the last and rely on

the first as the only effective thing in God's great universe.

The day of the quack and the charlatan, whether his panacea be pills or prayer, will pass away, and no more rob the poor and the ignorant. Education on the line of real things, absolute facts relating to health and human welfare is best given by that oldest and grandest of all philanthropic organizations, the medical profession. The county societies are not doing their full duty unless they enter earnestly on this work of educating the people how to maintain health and prevent disease.

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## THE NEUROTIC FACTOR IN GASTRIC TROUBLES\*

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BURTON R. CORBUS, B. S., M. D.,

Consulting Gastro-Enterologist to Butterworth Hospital.  
Grand Rapids.

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In Dr. Abram's little monograph, "The Blues," I find this paragraph: "The more I observe dyspeptics the more certain is my conviction that nervousness is responsible for the majority of cases. We are a nation of dyspeptics owing to our ceaseless and intense living habits."

Years before, in 1836, Dr. Amariah Brigham wrote a little book on the "Influence of Mental Cultivation and Mental Excitement upon Health," in which he expresses much the same thought:

"Dyspepsia is generally considered a disease of the stomach primarily, but I apprehend that in a majority of cases, especially among students, it is primarily a disease of the brain and nervous sys-

tem, and is perpetuated by mental excitement."

Certain it is that there is no organ in the body so much under the control of the central nervous system as the stomach. Its close relationship with the ramifying solar plexus makes it a most favorite site for general reflex disturbances, and conversely may itself produce a myriad of reflex disturbances throughout the system. I know of no such prominent and frequent example of the ease with which the so-called vicious circle may be established as is to be found in the various stomach disorders.

The worker along nervous or digestive lines has early impressed upon him the rarity of true primary stomach trouble as compared with functional disturb-

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\*Read before the Grand Rapids Academy of Medicine, May 21, 1907.

ances arising from a disturbance of nerve equilibrium or as a reflex from some other, perhaps unsuspected, disease. It is a common experience to have the incipient tubercular case show symptoms of gastric disturbance some time before the lung shows solidification; to have indefinite digestive disturbances as a precursor to locomotor ataxia and particularly of Bright's disease. On the other hand, those gastric symptoms based on a pure neurosis are frequently so marked, so closely may they simulate true organic disease, that it is only after the most careful and repeated examinations, with contributing chemical and microscopical tests, that the physician is able to satisfactorily determine that he has not a true organic trouble to deal with.

In my own experience, I should say that fully 75% of my neurasthenic patients have had as one of their most prominent symptoms, some form of indigestion. In very many cases the gastric symptoms were so prominent as to completely overshadow the basic trouble and the patient came to be treated for stomach trouble.

While it is true that in such cases gastric analysis may show no abnormal condition either as to chemism or motor power, and we are forced to attribute the expressed symptoms to the general hypochondriacal condition, yet, more frequently is there such alteration of chemism, or of motor power, as a result of faulty nerve innervation. It is self-evident that where marked gastric irritation exists, there we have the establishment of a vicious circle, and such irritation must primarily be relieved.

The cases of pure gastric neurasthenia, hypochondriacal in type, without marked alteration in chemism, are not infrequent and may be of such severity as to actually threaten life through malnutrition. These are oftentimes puzzling cases, coming to you in such a markedly ema-

ciated, weakened condition that one feels that there must exist a true organic lesion, to account for the condition. The predominant cause lies in the fear of taking food. The unpleasant symptoms which, following the ingestion of food, cause the patient, perhaps on the advice of the physician, to reduce his food to a minimum (a case, which I now have, had reduced his diet to two glasses of milk, one egg and six graham crackers per diem) are almost as variable as the number of individual cases. As a rule, the patient complains of an indefinite feeling of discomfort, pressure, fulness, distension, following the ingestion of food, but varying little from day to day and bearing but little relationship to the quality. Not infrequently one runs across a group of bizarre symptoms—Hemmeter speaks of patients who describe their symptoms as, "similar to the rolling of a ton of brick on his belly"—"to being stabbed with a red-hot knife"—"as being compressed as though in a vise." This latter symptom is a very common one.

It is self-evident that in treating such cases where the emotional strain and the psychical condition are so prominent, suggestion must bear a most important part. Constant re-assurance and encouragement does more than medicine. In the absence of an undercurrent irritant, these patients get well when their extreme apprehension is removed and the system again receives the requisite amount of food calories. In this connection look well to the genital system. I have been surprised at the frequency of sexual irritation frequently exemplified in the habit of masturbation. Adhesions to neighboring organs or enteroptosis may also, and frequently do, form a basis for these sensory disturbances. Indeed, it is often most difficult to determine the localization of the irritation which results in this "dyspepsia nervosæ." Un-

doubtedly, however, the largest percentage can be classified as having their origin in:

First—Auto-intoxication and the Acidosis.

Second—Brain.

Third—Genitals.

A neurological diagnosis must necessarily in the majority of cases be based on exclusion, and particularly in these cases is a most careful differentiation and most unbiased judgment requisite. The great danger, I believe, is a neglect to appreciate the important part the stomach frequently plays as a focus for the manifestation of some serious undercurrent trouble acting reflexly, and of treating as of slight moment these cases which come complaining of indefinite distress, pre-cordial pain, and such other mild symptoms as might be classified as simple stomach trouble.

It is not my purpose to discuss the multiform varieties of stomach neurosis—not at all those neuroses so characteristically of nervous origin as to be indeed separate entities. I do not believe that there is a functional disease of the stomach which cannot have its origin in a neurosis. This is no argument, however, for the great tendency, as Riegler points out, to call all diseases of the stomach which do not conform to the typical disease-syndrome—neuroses.

It is only after the most exhaustive examination with repeated chemical and microscopical tests, that we are justified in making such a diagnosis. Frequently the acuteness of the diagnostician is tested to the utmost in an effort to make a differential diagnosis between such an important organic disease as carcinoma and a pure neurosis, for we may have a pure neurosis, causing hypochlorhydria—even a total absence of hydrochloric acid—and given this phenomenon combined with a marked motor insufficiency, a not unusual condition, lactic acid and even

the Oppler-Boas bacilli may be found.

I desire to briefly consider one disease of the stomach which in a majority of cases, but not by any means all, is essentially a neurosis and which in my experience is not only the most common of the gastric neuroses, but also the most distressing.

That hyperchlorhydria may be, and perhaps is, most frequently of a purely neurotic origin, was long contended and insisted upon by Reichman, Ewald and others, and is now granted by practically all authorities. Of the allied syndrome, the Gastro-succorhea Periodica of Reichman, in which there is an outpouring of gastric juice irrespective of the ingestion of food, there has ever been a uniformity of opinion, the connection between the attacks and the mental state being so characteristically marked. That the chronic hypersecretion of Riegler, the gastro-succorrhoea chronica of Reichman, may also be of nervous origin, is accepted but is probably more often a secondary symptom of "ulcer, pylorospasm or motor insufficiency." (Hemmeter.)

The exact etiology of the disease is still undetermined. We do know, however, that the predisposing condition in a vast majority of cases, lies in the nervous system. Those individuals who perform much mental labor, the easily excitable, the neurasthenic, the melancholic (von Noorden) are especially liable, while psychic influences, violent emotions and mental overwork suffice to bring on the acute attack.

Almost all my extreme cases of hyperacidity and the closely allied periodic hypersecretion have been among professional men. A physician now under my care, who has long been troubled with periodic attacks, is able usually to trace the individual attack to mental strain and worry, a succession of serious and worrisome operative cases, I remember, bringing on the last attack.



The patients frequently are extremely apprehensive in regard to eating, but unless this fear of the pain after eating has caused them to adopt an unreasonably restricted diet, they are usually fairly well nourished and have good appetites.

The symptoms are variable but in a reasonably severe and typical case the patient complains of heaviness, an indefinite distress accompanied by pyrosis and eructations, coming on after eating, sooner after a light meal than a heavy one, the distress increasing in intensity until from three to four hours after eating there develops an actual pain, frequently cramp-like and extremely severe. This distress persists until the next meal unless vomiting interferes. The most severe attacks are usually accompanied by pyloric spasm—this spasm, brought on by the acid irritation, holding back the acid contents of the stomach.

The patient frequently has independently discovered that he can obtain relief by eating something. A patient today told me that he always carried with him a lump of sugar and found relief in taking that. (This is according to Prof. Strause's experiments—that sugar inhibits the gastric secretion). A hard boiled egg or a piece of cheese are other remedies which the patient frequently has discovered independently and which I often prescribe, the reason being, of course, the high acid-combining power possessed by these articles.

The diagnosis is to be based on an examination of the stomach contents after a test breakfast or test meal. There is, however, no positive, definite, mathematical relationship between the amount of acid found and the severity of the symptoms. Much depends on the degree of hyperesthesia present, and it is often the case that a normal—if we consider an acid contents of .2% normal—will give rise to characteristic symptoms.

Another interesting class of cases

which have their origin in this hyperacidity but complain perhaps of but little local disturbance, are the cases of severe migraine. Such a case I have had recently. This man, a dentist, has had periodic attacks of migraine for sometime, latterly being forced to give up work from one to two days about twice a month. The true gastric symptoms were rather indefinite though there were sufficient symptoms at the time of the attack to direct the doctor's attention to his stomach. Here again was traceable the connection between the psychical state and the attack, over-work or a period of worry usually preceding, the last time the serious illness of his mother being the cause.

The connection between migraine and hyperchlorhydria has long been recognized, and many explanatory theories have been suggested—the Auto-intoxication theory of Rachford seeming to me to be most reasonable. He suggests that the hydrochloric acid in excess "by union with the calcium, potassium sodium and magnesium of the blood and tissues may, by the removal of these bases, produce symptoms directly due to the diminished quantity of these alkalies in the blood and tissues. These alkalies in definite quantities in the body-media are known to be absolutely necessary to normal physiological processes and any diminution of these qualities is fraught with serious results."

#### As to treatment:

First and most important is diet, in regard to which there is a most decided difference of opinion. Is the diet in these cases to consist largely of albumins, such as meats and eggs, which we know tend to stimulate the secretion of the gastric juice, but at the same time possess such marked combining power as to be capable of taking up the acid excess, or shall we confine the patient to a dietary made up largely of proteids

with little acid combining power, but which do not excite the glandular activity?

After trying both systems I prefer that the diet shall consist of those foods possessing highest combining power. One advantage is that such foods are more palatable and contain a greater amount of calories. Further, I advise my patients to eat only two meals a day, morning and night, this allowing the over-worked secreting apparatus to recuperate and by not limiting the amount, expect that the free HCL—and it is the free acid which produces the symptoms—shall be largely combined. This is a utilization of the results of Pavlow's experiments on dogs, who found that food administered at short intervals caused repeated active discharge of the "appetite juice," but when the entire ration was given at once there was a marked drop in the formation of hydrochloric acid and the ferments.

Pavlow also determined that fats inhibit the glandular activity, so it is a most rational treatment to give olive oil in decided doses. There is a further advantage in the use of olive oil since it serves to counteract the tendency to constipation almost invariably present in these cases and is also of most decided value as a nutrient. In cases where the

olive oil is not well borne—there are but few such cases—an emulsion of sweet almonds answers very well but does not have the nutritive value.

Alkalies for temporary relief are almost invaluable. The magnesia usta, in that it does not combine with the chlorides as do the carbonates, is to be preferred. I usually combine with it bismuth subgallate and lupulin, the latter in ten to fifteen grain doses having apparently a most favorable action, especially in the essentially neurotic cases.

In the more serious cases I use a pill or capsule of silver nitrate and extract belladonna given before meals, and occasionally, particularly where hypersecretion is present, I resort to atropia hypodermically.

There is, however, no treatment which gives such prompt relief and has such curative value as lavage, first with an alkaline solution, then with a silver nitrate solution 1 to 1,000 or 2,000.

It is perhaps unnecessary to remind you that we are dealing with an essential neurosis in the majority of cases and though immediate treatment must be directed to the relief of the local irritation, our efforts at the same time should be directed toward improving the nerve tone and regulation of the mode of life.

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The 39th annual meeting of The Medical Editors' Association on June 3 at Atlantic City, was the most successful in point of attendance and general interest ever held. The rapid increase in membership is an assurance that in the future the meetings of the American Medical Editors' Association will be an important feature annually. Sixty-four new members were elected.

An important feature of the meeting was the appointment of a Committee of Publicity, whose duty it will be to see that the medical profession, through the medical press, are promptly informed upon all matters of general interest.

The following officers were elected: President,

C. F. Taylor, M. D., Philadelphia, Pa., Editor of the Medical World; 1st Vice-President, Kenneth Millican, M. D., St. Louis, Editor St. Louis Medical Review; 2d Vice-President, H. E. Lewis, M. D., N. Y., Managing Editor of the International Journal of Surgery; Secretary and Treasurer, J. MacDonald, Jr., M. D., Managing Editor of the American Journal of Surgery.

Executive Committee: Dr. W. C. Abbott, Editor of American Journal of Clinical Medicine, Chicago, Ill.; Dr. W. A. Young, Editor of Canadian Journal of Medicine and Surgery, Toronto, Ont.; Dr. D. C. English, Editor of the Journal of the Medical Society of New Jersey, New Brunswick, N. J.



## A CASE OF PERFORATION OF THE SMALL INTESTINE, WITH OPERATION AND RECOVERY\*

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W. T. S. GREGG, M. D.,  
Calumet.

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Peter Y. Austrian, age 35, was brought to the Tamarack Mining Company's Hospital from his home, one and one-half miles from the hospital, in a sleigh, by his boarding boss, at 3:30 a. m., Feb. 15th, 1907. I found him sitting in the waiting-room and in reply to questions he complained of pain in the pubic region and said only "no water come." He was catheterized and only a few drops of urine came away. Examination showed the abdomen flat, rigid and tender at every point, with a small hernia protruding from the right inguinal ring. Gentle taxis easily reduced the hernia and as he spoke or understood only a few English words and consequently no history of present or previous illness could be elicited, I thought it best to put him to bed and await developments. Pulse was about 80. Temperature was not taken. I thought at the time that probably the presence of the hernia accounted for the symptoms, yet he looked so sick I thought it better not to send him back home. He was given a glycerine enema and put to bed. Enema came away clear. He slept from 5 until 7 a. m., without having received any anodyne or medicine whatever. Soon after waking he had a slight bowel movement. At 7 a. m. pulse was 86 and temperature 101 2-5. He was soon groaning continually with abdominal pain and when questioned, put his hand to lower part of abdomen and said "no water come," as

before. He was catheterized the second time at 8:30 a. m., and two ounces of urine withdrawn. A high rectal injection of salts, glycerine and turpentine was given at 9, and it came away clear. Another was given at 9:30 with same result. By this time his brother had appeared on the scene and with great difficulty and repeated questioning, using for the purpose three languages and two interpreters, the facts appeared that he had been home from work, sick, for 17 days, that during that time he had twice visited the hospital and gotten medicine from one of the physicians for constipation, at one time receiving calomel and the other Epsom salts, that five hours before going to the hospital the pain in his belly had become a great deal worse, that he knew nothing of any hernia, had not vomited, nor had he eaten anything for several days. The fact that he had been in bed for the last five days before going to the hospital was not learned at this time, and this fact only came out two weeks later. At 9 a. m., his pulse was 96 and temperature 100. He had the gray, drawn face of severe illness, he groaned constantly and was perspiring so profusely that when he sat on the slop-jar to expel the enema the sweat dropped from the end of his nose to the floor. It could easily be seen that he was steadily getting worse. Viewed from any angle, here was a bad case—bad to leave alone—bad to operate on. The question was, what was the exact pathology inside that abdomen? The

\*Read before the Surgical Section of the Michigan State Medical Society, Saginaw, May 15-16, 1907, and approved for publication by the Publication Committee.



symptoms pointed to some obstruction of the intestinal canal, but was it ileus, volvulus, intussusception, obstipation, perforation of an acute appendicitis? We could not say, and an exploratory laparotomy was proposed to the patient, who readily consented. By the time the priest had seen him and prepared him for his last journey, it was 11 a. m., soon after which the operation was begun, Drs. Lawbaugh and Rodi assisting. The abdomen was still very flat, rigid and tender. It was prepared by scrubbing with Harrington's solution and alcohol. The incision was a long one through the right rectus and on opening the peritoneum a considerable quantity of yellowish fluid, containing flocculent, whitish, exudate appeared. After mopping this out it was seen that all the intestines in the neighborhood of the right iliac fossa were intensely inflamed, covered with exudate and so friable as to be almost gangrenous. Indeed the smooth, rounded gauze packer, commonly used to pull up the intestines, so bruised and nearly tore through the large intestine, that it left a hemorrhagic spot wherever it touched and its use had to be abandoned. After packing back the intestines with gauze, search was made along the ascending colon for the source of obstruction or a perforated gangrenous appendix, but none found. The entire right side of the pelvis was exposed to view clear down to the lowest portion of the rectum, but the deeper we went the more healthy the structures looked.

After replacing these intestines in the right side of the pelvis, with the intention of searching elsewhere, a portion of the ileum adjacent to the cecum was pulled into view and there, about six inches from the ileo-cecal valve, was a round perforation 1-6 inch in diameter, with yellowish bowel contents oozing freely out. The wall of the gut at the point of perforation was enormously thickened and the tissues for quite a dis-

tance very friable, so that an attempt to close the leak by Lembert sutures had to be given up, as the sutures tore through as fast as put in. It was seen that nothing but a resection of that portion of the intestine would avail. Accordingly clamps were put on above and below the ulcer-bearing area and a complete section of the gut made together with a V-shaped section of the mesentery. This latter was sutured with catgut, bringing the mesenteric edges of the healthy gut close together. A medium-sized Murphy button was then used to form the anastomosis. A running over and over No. 1 silk suture penetrating all coats of the bowel was placed at the edge of both ends of the gut; one-half of the button placed in each end and the sutures pulled tight and tied and the two halves of the button pushed together. The line of junction was then covered in by a continuous peritoneal suture, partly of the Lembert and partly of the Cushing variety, beginning at the mesentery on one side and running around to the other. Dry sponging completed the toilet of the peritoneum and the wound was closed in the usual manner with layer suture with a split drainage tube and iodoform gauze drain at the lower angle. Time of operation—about 2 hours. Pulse at end of operation—about 110. Highest pulse after operation—about 124, at 9 p. m. of same night. He was put on strychnine (gr. 1-60) and salt solution given subcutaneously and by rectum. Voided 12 oz. urine at 7 p. m.; vomited a little late in the evening. For 24 hours after the operation the temperature was normal, then it came up a little and was between normal and 101.2-5, the highest recorded for one week, since which time it has been normal. Pulse has been between 80 and 90 since third day after operation. Drainage tube removed in 48 hours. Only a short, small tube sufficient to keep the track through the abdominal

wall could be put in to replace the one taken out. After a salts and glycerine enema on the third day, a large fluid bowel movement occurred and free passage of flatus. On the evening of the fifth day after operation, a fecal odor was noticed on dressings and soon a freely discharging fecal fistula was formed with odor like that of contents of large intestine. It contained some undigested food particles, soon greatly lessened in amount, and became of a color and odor more like that usually found in fistulas from the small intestine. So I am at a loss to know whether one of the bruised spots on the large intestine broke down, or whether, as is more likely, a leakage occurred at the point of anastomosis of the Murphy button. At any rate the button held long enough for adhesions to form, walling off the infectious discharge from the general peritoneal cavity. The button has not yet come away and rectal examination does not disclose it in the rectum. The bowels move per vias naturales every day. Patient was given water for three days, then Mellin's food, and broth; then milk; later softer diet. He has been quite comfortable, sleeping and eating well.

The fecal fistula ceased discharging in about two weeks and in two more weeks the incision was all healed and perfectly dry. It remained so for fully two weeks when the upper and lower angles broke down again and there are now, May 9, two small sinuses which apparently do not communicate with the intestine. These are being aspirated daily with a breast pump, which withdraws a little sero-purulent fluid and causes passive congestion after the method of Bier. According to Hemmeter, Nothnagel classifies intestinal ulcerations into six varieties:

1. Ulceration in consequence of necro-biotic processes.
  - a—Simple ulcer of duodenum.

- b—Due to burns.
- c—Embolic and thrombotic.
- d—Amyloid.

2. Ulceration due to inflammatory processes.

- a—Catarrhal.
- b—Follicular.
- c—Stercoral or decubital.

3. Ulceration due to acute infections.

- a—Typhoid.
- b—Dysenteric.
- c—Diphtheritic.
- d—Anthrax.
- e—Sepsis.
- f—Erysipelas.
- g—Smallpox.

4. Ulceration due to chronic infections.

- a—Tuberculosis.
- b—Syphilis.

5. Ulceration due to constitutional diseases.

- a—Gout.
- b—Scurvy.
- c—Leukemia.

6. Toxic Ulceration.

- a—Uremic.
- b—Mercurial.

In the case repeated above, the diagnosis is still unsettled, but the probabilities greatly favor tuberculosis or typhoid, with the chances in favor of the latter. This man was sick enough to be home from work for nearly three weeks, and it is altogether likely this was a case of walking typhoid. After his operation he was treated and dieted as typhoid. No Peyer's patches were found on operation, though they were not very carefully looked for. As to the classical symptoms of perforation, some he had some he did not. He had the sudden, sharp, paroxysmal pain of increasing severity, and early muscular



rigidity, but without distention or tympanites. The signs of shock did not appear at once, and if the crossing of the curves of pulse and temperature did occur, it did so soon after the perforation,

as after entering the hospital pulse and temperature went up together. No Widal test was made, nor was any microscopical examination of the ulcer made.

### DISCUSSION.

**Dr. H. C. Wyman**, Detroit, suggested that in typhoid fever an enterostomy ought to be done, in order to apply local treatment to the seat of the disease and to forestall perforation and other common complications.

**Dr. J. A. King**, Manistee, described a case of traumatic rupture of the gut, without external signs of injury. Operation and recovery.

**Dr. F. E. Parkinson**, Saginaw, described the case of a child who jumped from a porch, and sustained an injury to the ankle, but made no complaint of trouble elsewhere. Three days later abdominal symptoms developed, and operation was advised, but refused, and the child died.

**Dr. F. W. Robbins**, Detroit, emphasized the fact that laparotomy should be done at the earliest possible moment in cases of obscure ab-

dominal conditions, without waiting for an exact diagnosis. Reported an illustrative case.

**Dr. H. B. Garner**, Traverse City, described a case of an obscure abdominal condition, in which the diagnosis of peritonitis was made by a blood count.

**Dr. Wm. Fuller**, Grand Rapids, spoke of a case of perforated gut, possibly caused by a hernia, which was known to exist.

**Dr. H. O. Walker**, Detroit, suggested that the sinus remaining in Dr Gregg's case might be due to the Murphy button, which had not been passed, and an X-ray would be helpful.

**Dr. S. L. Ballard**, Bay, described the case of a boy who fell on a box, and developed severe pain, pulse 168, no temperature, no external sign of injury, dulness in left flank, blood in urine. This proved to be a rupture of the kidney.

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L. Kast and S. J. Meltzer here present a preliminary communication based on animal experimentation on the subject of abdominal pain. The prevailing view based upon exact surgical observations is that the abdominal organs, whether normal or inflamed, possess no sensation of pain. The writers, on the other hand, have found in animal experimentation that the sense of pain is present in normal organs, and that it is considerably augmented in inflamed organs; and that a subcutaneous or intramuscular injection of cocaine is capable of completely abolishing this sensation in normal as well as in inflamed organs. They suggest that the anesthesia of the internal abdominal organs observed by certain surgeons was due to the use of cocaine. These investigators have also found that the injection of a small dose of cocaine has a calming influence upon the excitation of the narcotized and operated animals. These new observations are capable of practical application in medicine.—*Medical Record*, December 29, 1906.

G. Lenox Curtis declares that until recently drugs have been almost the only means available for the treatment of this disease, but now more efficient measures are at hand. The chief of these he believes to be the ozone-producing electric current. The writer then gives a brief outline description of the apparatus by which ozone is generated. He finds ozonation an ideal remedy for all stages and degrees of congestion. The effects of ozonation are both mechanical and chemical. Abnormal accumulations are oxidized and destroyed, and the morbid elements in the blood are dealt with in a similar manner. However, in treating pneumonia the writer does not rely upon any single remedy. A profuse and prolonged sweat often proves beneficial. External heat as a means to this end is to be preferred to drugs. The use of oxygen in the first stage is valuable. Elimination must be looked after. The patient should be well nourished. The writer closes with a plea for preventive medicine.—*Medical Record*, March 16, 1907.



## The Journal of the Michigan State Medical Society

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AUGUST

### Editorial

The physicians of Michigan have for years taken a lively interest in the American Medical Association. Many men annually attend its convention and watch with concern its progress from year to year. At the 1907 meeting in Atlantic City there were 93 Michigan physicians registered; only seven states had a larger registration—Pennsylvania, 1,019; New York, 560; New Jersey, 249; Ohio, 213; Illinois, 183; Massachusetts, 176; Maryland, 117. Last year at Boston Michigan was tenth with a registration of 111, the first nine being Massachusetts, 1,478; New York, 489; Pennsylvania, 433; Illinois, 237; Ohio, 189; New Hampshire, 156; Rhode Island, 153; Maine, 176; Connecticut, 115. It is natural that the states in the near vicinity of the place of meeting should have a large representation; hence the large figures of the New England states last year, and of Pennsylvania, New Jersey and Maryland this year. The New England states, excepting Massachusetts, usually send few visitors, and the same is true of New Jersey and Maryland. New York and Pennsylvania, being states of vast population and a great number of physicians, always have a large attendance. All things considered, then, Michigan's delegation is very creditable.

Reckoned in ratio of registration to number of physicians in the state, 1906

gave Michigan about 2½%, Illinois 2½%, Ohio 2½%, New York 4%, Pennsylvania 4%; 1907 gave Michigan 3-10%, Illinois 1 9-10%, Ohio 2 8-10%, Pennsylvania 10%, New York 5%. This makes Michigan's showing even better than the actual figures of attendance.

It is to be hoped that this state will maintain and improve her record; it means progress for the individual and for the profession. It is an index of the alertness and strength of medical men and with our central situation there is no reason why these factors should not constantly better the conditions.



The throwing of bouquets at the average medical meeting is a conspicuous feature of many discussions. If verbatim reports were made of the impromptu remarks following upon the formal essays, how many of them would begin thus: "I am sure we all feel greatly indebted to Dr. ——— for his very able paper," or "I certainly congratulate Dr. ——— upon his excellent and highly entertaining paper." The formulae differ, but we hear the same phrases over and over again and one speculates upon how much sincerity lies behind the stereotyped compliment. It is surely a pleasure to have a good essay recognized, and a timely expression of appreciation is quite fitting. But the indiscriminate showering of such expressions becomes meaningless, trite and sometimes ludicrous. Not every paper deserves these encomiums and the majority of an audience must feel that, when a mediocre essay has been given, such remarks are mere flattery and hypocrisy.

A medical meeting is no place for flattery, and while doubtless the indiscriminate praising is not intentional flattery, but a habit, yet it should be borne in mind that a man is judged by what he says. And if Dr. A. perceives Dr. B.'s habitual flattery of other men, he is suspicious when that same flattery is di-

rected toward him. And if Dr. B. appears insincere in one respect he is readily suspected of being so in other and all respects. This is not a logical conclusion, perhaps, but it is human.

Too many words are wasted, anyway, at medical meetings. Often the preliminary compliment is expanded and elaborated, and in a discussion of five minutes the first half consists of a platitudinous volley of flattery, and the peroration is a repetition. And the gist of the remarks is sometimes hard to find, because it is entangled in a prolixity of words which serve more to obscure than to clarify.

It is not necessary to praise every medical paper that is read; universal praise cheapens itself and it becomes valueless. There are men who have contracted the habit so firmly that they never rise to speak without prefacing, and sometimes concluding, their words with fulsome laudation, regardless of the worth of the essay. In such men it is occasionally easy to suspect ulterior motives,—the desire to ingratiate, the effort to popularize themselves, and the fear of criticising what needs dispute. With other men the compliments seem to be offered as a balm,—a prophylactic dressing for the wounded feelings that ensue; for such men follow with ruthless attacks upon any and all points of the essay. This course of procedure seems inconsistent, if not womanish.

It must be admitted that a few graceful speakers have learned the art of adulation to perfection. Honeyed compliments flow from their lips with admirable sonority and one is almost trapped into enthusiasm, until it is remembered that the same man spoke in the same vein at the previous meeting and yet many previous meetings. The practice has the insidious ring of oratory, but it is usually out of place in scientific discussions, and is too readily seen through by men who are waiting for words of intelligence and reason.

There are, of course, some papers that are conspicuously good, and one would like to have them distinguished by deserved praise. But it too often occurs that all superlatives, so to speak, have been exhausted on all other sorts of essays, and the praise bestowed upon the exceptional one falls into the category of commonplace. Compliments to essayists, as to children, should be used sparingly; the wholesomeness of merited praise is soured by the knowledge that it has been scattered indiscriminately on all other occasions. Some men rarely pay a compliment; it is from them that shrewd men desire commendation. The hard-headed, cold-reasoning man of science knows chaff from wheat and his praise is dearly esteemed, because seldom given. When he rises to discuss, he speaks to the point and has something to contribute. He agrees without flattery and disagrees without parley. But the complimentary discussor can often be classed with those who have nothing to say and take long in saying it. They have little to contribute to the real illumination of the subject and keep at a respectful distance from it.



**Famine in the midst of plenty** may be spoken of medical papers in these days of voluminous writings. The famine affects medical meetings even more than it does the printed matter. For while there are plenty of good papers in current periodicals, which read well and give a good impression of the author, yet if these same essays were heard delivered by the authors, the disappointment might be very noticeable. The famine, then, lies in this,—that we seldom hear an essay of adequate subject matter given in clear, forceful, interesting manner. It is the exception when the presentation of the essay is not marred by either an insufficient volume of voice, or too rapid or stumbling reading, or too close attention to the written



page, or some equally detracting defect. All these are points that can easily be remedied to a great degree by care and practice. But there remains one defect which is seldom realized and that is, that in medical papers the speaking version in nearly every case ought to be modified from the reading version.

It is, indeed, sometimes a great advantage if one can *talk* about his subject, instead of reading word for word from a written page. The address without notes is always by far the most interesting to an audience. But this requires a special aptitude and moreover cannot always be done, because of the nature of the essay. However, it is very often possible to alter the essay in certain details of composition so that it will sound much more direct and understandable for speaking version. There are some men who first write their addresses with a view only to the actual delivery; the tone is made informal and conversational, long sentences are avoided, salient points are reiterated, and the whole thing condensed. Then in preparing the same thing for publication it is amplified, the tone is made more formal and repetition is avoided.

A medical essay ought to have some one or more excuses for being. But there is one class of writings which lacks even one excuse, and that is the text-book "re-hash." Probably every society listens in the course of a year to several papers which present nothing new, and nothing old in a new way, and are evidently a hasty jumble compiled from one or more familiar books. Every journal, unfortunately, prints a certain number of such compositions in the year's time.

Medical essays may be classed as follows: analytical; statistical; critical; historical; philosophical; case reports; original investigations; new observations; text-book potpourris. Of the last class there is seldom one which rises above

the mediocrity to which their very nature consigns them. Medical journals and medical meetings can well do without them, and he who perpetrates them must think little of his audience and less of himself. But from the other classes one can always select a subject, and of these it is hard to tell what is the most valuable. In general, it may be said that the analytical, philosophical and critical papers should be left to men of experience; especially fitting for younger men are case reports, statistical, and investigative articles. Good case reports are always interesting; statistical papers are not interesting to listen to, but always find a niche in the realm of reference compilations; while original investigations are desirable contributions in every way.

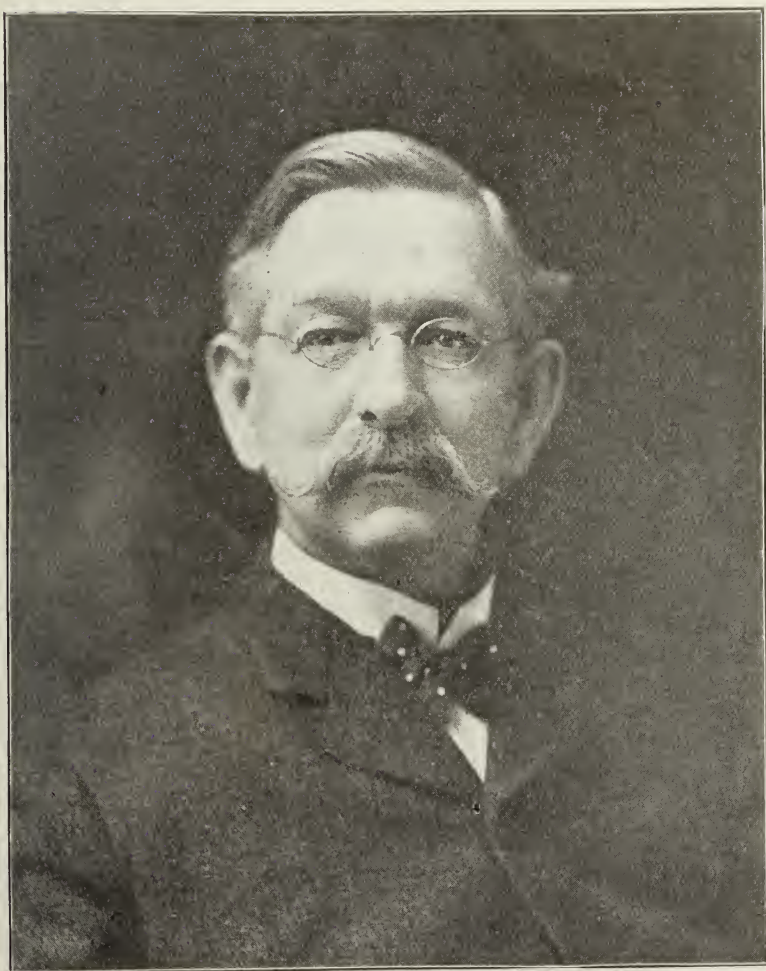
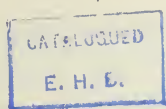


#### DR. ALBERT E. CARRIER.

On July 4, at St. Clair Flats, Dr. Albert E. Carrier, of Detroit, died suddenly from heart disease, aged 66. The funeral was held from his late residence on Saturday, July 6.

Dr. Carrier was a well-known physician, not only in Detroit, but throughout the State, and even throughout the country. For many years he had been identified with special work in dermatology, and his zeal, skill and progressiveness had kept him a conspicuous figure in the profession. He was born in Jefferson County, New York, May 16, 1841. Graduated from the Bellevue Hospital Medical College in 1865, he took up practice in Detroit, and with the exception of a few years, when poor health caused him to seek a change in the lumber business, he has been in continuous practice ever since. Dr. Carrier was professor of dermatology and syphilology in the Detroit College of Medicine, dermatologist to Harper, St. Mary's and the Woman's Hospital, was at one time coroner, and in 1905-1906 was president





**Dr. Albert E. Carrier**

of the Wayne County Medical Society.

He is survived by a daughter, Irene S., and a son, Augustus. The esteem in which the deceased was held is best shown by the following:

**Resolutions by the Staff of Harper Hospital on the Death of  
DR. ALBERT E. CARRIER.**

Whereas, death has suddenly removed our friend and co-worker, Dr. Albert E. Carrier, it is fitting that the staff of Harper Hospital take cognizance of the sad event and in memorial express the loss and sorrow sustained by all in this severance of ties of many years' duration; be it therefore

Resolved, That in our profound grief at the death of so beloved and prominent an associate, the members of this staff extend to the family of the decedent their deepest sympathy.

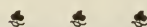
Dr. Carrier was a man of strong character and deep convictions, whose faith and creed were carried into all he did or said; a distinguished member of a profession which he loved and nobly served.

As a teacher he was thorough, and his utterances were marked by a clearness and forcefulness which left no doubt as to his mastery of the subject which he attempted to convey; as a physician he stood for all that was highest and best in his chosen field of work, and by attainment and personal effort ever sought to advance the welfare of his fellows and the cause of scientific medicine; as a man his many excellent qualities endeared him to all who possessed his friendship; he was true and honest, and a Christian gentleman.

Be it further resolved that transcribed copies of these resolutions be sent to the family of the decedent, spread on the records of the staff of Harper Hospital and published in the Bulletin.

EUGENE SMITH,  
W. P. MANTON,  
P. M. HICKEY,

Committee of Staff of Harper Hospital.



**The County Society.** During the past month a new society has been organized in Ontonagon County, a list of the members of which will be noted under county society news. Ontonagon County was formerly included in the Houghton County territory, but the relatively long distances of the Upper Peninsula made it impracticable for members to attend the meetings, and the resident physicians feeling the need of organization have established the new society.

The State Society now has fifty-seven component branches, all but three of which are active.



**The following resolutions** were adopted by the Section on Nervous and Mental Diseases of the American Medical Association at the recent meeting in Atlantic City:

Whereas, Death has removed from our midst Dr. William J. Herdman, and

Whereas, Dr. Herdman was for many years a teacher of nervous and mental diseases and an active worker in this section of the American Medical Association, and served a term as secretary and chairman; and

Whereas, Dr. Herdman always brought to his work great thoroughness, painstaking care and a trained intelligence, therefore be it

Resolved, That in the death of Dr. Herdman this section has lost a valued contributor, the American Medical Association an unusually efficient member and his colleagues a trusted friend.

C. C. HERSMAN,  
HUGH T. PATRICK,  
Committee.

# Book Notices

**Diseases of the Lungs.**—Designed to be a Practical Presentation of the Subject for the Use of Students and Practitioners of Medicine. By Robert H. Babcock, A. M., M. D., Consulting Physician to Cook County Hospital. 12 colored plates and 104 illustrations. Cloth, pp. 809. Price \$6.00. New York: D. Appleton & Company, 1907.

It was the original intention of this talented author to write a one volume work covering the diseases of the chest. In preparing the portions dealing with the heart, however, it was found that so much space was required that it was decided to issue the work in two volumes. "Diseases of the Circulatory System" was accorded instant recognition and has been widely read. This volume is uniform with the first in appearance and is equally good.

The various diseases of the lungs are considered in logical order, much space being given to symptomatology and case histories. Diagnosis and treatment have not been neglected. The author has a fluent style, making the reading both easy and pleasant, while from a scientific viewpoint, the book leaves nothing to be desired, although one might perhaps criticize the relatively small number of pages given up to the diseases of the pleura. The most important chapters are happily the best, the one on tuberculosis being especially good.

This is practically the only English book devoted exclusively to this particular field and it can be safely said that few readers will be disappointed in it.

**Metabolism and Practical Medicine.**—By Carl von Noorden, Professor of the First University Medical Clinic, Vienna. Anglo-American Issue under the Editorship of I. Walker Hall. Professor of Pathology, University College, Bristol. Vol. I. The Physiology of Metabolism, pp. 450. Price, \$4.00, net. Vol. II. The Pathology of Metabolism, pp. 525. Price, \$6.00, net. Chicago: W. T. Keener & Co., 1907.

To say that this work is the most important one of the present year is not an exaggerated statement. Since its appearance, the German text has been looked upon as the authority and it is indeed a matter of congratulation that its wealth of information is now available for English readers. The translation has been done by several men and the whole edited by Professor Walker Hall, the well known Bristol investigator. Professor Hall has made certain additions, wherever necessary to bring the work up to 1907. He has

also added to the bibliographies at the end of the chapters so that recent American and English papers of note are now included.

The English edition will appear in three volumes, the first two of which are before us. The first volume by Levy, is devoted to the physiology of Metabolism, and the second volume on the Pathology of Metabolism is by various authors, notably von Noorden, Kraus, Schmidt, Weintraud, Matthes, and Strauss. It would be quite impossible, even had we the knowledge, to write a critical review of these volumes, within the limits of our space. Suffice it to speak of their importance and to say that they cannot be overlooked by the man who wishes to keep abreast of the rapidly accumulating knowledge on these all important topics.

We cannot too highly recommend the English book paper employed. It is a great improvement on the heavy and highly glazed paper used in most of our American text books, although, of course, not as well adapted to illustrations.

**Progressive Medicine.**—Vol. IX. No. 2. Edited by Hobart Amory Hare, M. D., and H. R. M. Landis, M. D. Philadelphia: Lea Brothers & Co., 1907.

To this number of Progressive Medicine, Coley contributes an excellent review of the progress in the treatment of hernia, especial attention being given to the more unusual forms. Many important reviews of recent articles on the surgery of the abdomen are given by Foote and on gynecology by Clark. In the latter section fully half of the space is devoted to the important question of cancer of the uterus. Stengel discusses diseases of the blood, diabetes, gout, obesity and disturbances of the ductless glands. Jackson reviews the progress in ophthalmology.

Progressive medicine is the best review journal published, for the articles touched upon are carefully selected, and so well arranged that consecutive reading is easy. Sufficient comments by the editor are made to prevent confusion.

**A Manual of the Diagnosis and Treatment of the Diseases of the Eye.**—By Edward Jackson, M. D., Professor of Ophthalmology in the University of Colorado. Second Revised Edition. 12mo of 615 pages, with 182 text-illustrations and 2 colored plates. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$2.50 net.

As a book for beginners and general practitioners the author has covered the subject in a satisfactory manner. If the book is for that



purpose alone it would hardly seem worth while to include three chapters on refraction and considerable space on operative work and its technique. However, these points are treated tersely and are made quite clear, and they help toward completeness. Such a widely used drug as argyrol ought to be mentioned under conjunctivitis.

The more usual lesions of the eye, which may often fall to the lot of the general practitioner for at least diagnosis, are dwelt upon with care and thoroughness. There is a considerable bibliography to assist those who desire further knowledge. A chapter on the association of ocular derangements with general diseases is highly commendable.

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**Hints on the Management of the Common Infections.**—By R. W. Marsden, M. D., Honorary Physician to the Ancoats Hospital, Manchester. Cloth;  $5\frac{1}{2} \times 8\frac{1}{4}$  in.; pp. 128; price, \$1.50. New York: E. B. Treat & Co., 1907.

In this neatly printed little book, Marsden has given much excellent advice on the management of patients suffering from the every day infectious diseases. Sound advice is given on hydrotherapy, nursing, dietetics and medication, all in such convenient form that it is a very good manual for ready reference.

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**The Essentials of Histology, Descriptive and Practical.** For the use of students. By Edward A. Schafer, F. R. S., Professor of Physiology in University College, London. New (7th) edition, revised and enlarged. Octavo, 507 pages, with 552 illustrations. Cloth, \$3.50, net. Lea Brothers & Co., Philadelphia and New York, 1907.

Schafer's Histology has been a well recognized authority and has been used by students for many years. Its deserved popularity has made frequent reprintings necessary and it has been revised from time to time. The seventh revised edition has just appeared.

Particularly to be recommended are the numerous illustrations, which are clear, if not so elaborate as in some books. Many are in colors. It is printed on thin but excellent paper, so that the contents equal those of much more bulky books.

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**Physical Diagnosis with Case Examples of the Inductive Method.**—By Howard S. Anders, A. M., M. D., Professor of Physical Diagnosis, Medical-Chirurgical College, Philadelphia. Illustrated

with 88 illustrations in the text and 32 plates. Octavo, 450 pages. D. Appleton & Co., New York, 1907.

The author says in the introduction: "The purpose is not to be cyclopedic in the mere enumeration of physical signs to the burden of memory; the technical, logical and practical are more worthy of emphasis and development. It is vitally important that the student, in the practice of a careful technic, gains assurance of observation and intelligence of apperception; and that he learns to think logically upon what he thus finds." We believe that this idea has been well carried out, for emphasis is laid on thoroughness and carefulness.

Inspection, mensuration, percussion and auscultation are carefully described. There are tables of differential physical signs and an excellent section, beautifully illustrated, on the X-ray in diagnosis.

It is a book worth reading.

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**Tuberculosis as a Disease of the Masses, and How to Control It.**—By S. A. Knopf, M. D., New York. Paper, 25c; cloth, 50c. For sale by "Charities," 105 E. 22nd St., New York City.

This is the fourth edition of an essay which was awarded the prize of the International Congress in 1899. Since then it has been revised and added to. It is now illustrated and contains a supplement on Home and School Hygiene, the Sanitarium Treatment at Home, and a review of Antituberculosis Movement.

It is an excellent book to put in the hands of the laity.

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**The American Pocket Medical Dictionary.**—Edited by W. A. Newman Dorland, M. D., editor "The American Illustrated Medical Dictionary." Fifth Revised Edition. 32mo of 574 pages. Philadelphia and London: W. B. Saunders Company, 1906. Flexible morocco, gold edges, \$1.00 net; thumb indexed, \$1.25 net.

This dictionary is an admirable example of conciseness. It is invaluable to the medical student, who can carry it in his pocket and at once learn the correct spelling, pronunciation, and meaning of new terms as he encounters them. If such a practice were more generally indulged, there would be a marked diminution of misspelled words in examination papers, to say nothing of more intelligent usage by students and graduates alike. A dictionary is certainly indispensable and even if one possesses the larger

works of this kind, the smaller one is the more frequently used. Dorland's little volume should be recommended to students and practitioners without reserve. There are many tables included, which are of great value, and a complete dose compend as the conclusion.

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**Practitioner's Handbook of Materia Medica and Therapeutics.**—Thomas S. Blair, M. D. 253 pages. Published by the Medical Council, Philadelphia, Pa., 1907.

Materia Medica and Therapeutics is the title of a small volume beginning with a long wordy introduction in which the author tries to justify its publication on wholly inconsistent grounds. He muddles up scientific pharmacology with therapeutic empiricism and homeopathic nonsense. Almost every drug that has ever been administered by physician, veterinary, patent nostrum vender, or herb quack is exploited as "high recommended" or "used from antiquity and recently introduced." The book is an unreliable jumble. It takes an optimist to buy it, no less read it.

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## County Society News

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### ONTONAGON.

A county society has been organized in Ontonagan county and a petition sent in for a charter from the State Society.

The following physicians are the charter members: E. J. Evans, Rockland; W. B. Hanna, Mass City; E. W. Knowles, Victoria; F. J. Larnard, Greenland; F. W. McHugh, Ontonagon; J. S. Nitterauer, Ontonagon, and A. L. Swinton, Ontonagon.

Dr. J. L. Nitterauer was elected president and Dr. F. W. McHugh, secretary-treasurer.

F. W. McHUGH, sec'y.

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## Correspondence.

Bay City, Mich., June 24, 1907.

To the Editor:

Inasmuch as the writer has seen cases aggravated by dilatation, it might seem interesting to consider the "rationale" of this and other methods of treatment. Like many other methods, this

seems to be the result of jumping at conclusions. Then, what is the cause of the enlarged veins, piles, irritation and contracted sphincter?

We usually find indigestion first of all, with all the other various complications. Thus as the cause, we usually have indigestion, constipation, etc., with sluggishness and more or less obstruction of the liver and other organs of digestion. Then, by the proper treatment of this condition, we attempt to remove the cause, whereas by dilatation of the sphincter and rectum, we merely treat the effect. With the other appropriate treatment, the dilatation might appear successful, though this would seem like a case of "post hoc propter hoc"—mere coincidence.

GEO. A. WILLIAMSON, M. D.

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## News

Dr. A. W. Alvord, of Battle Creek, has been appointed member of the State Board of Registration in Medicine for a term of four years, beginning Oct. 1. He succeeds Dr. George Ranney, of Lansing.

Dr. W. E. Woodbury has been appointed assistant physician at the state asylum in Ionia.

Dr. A. H. Steinbrecher and Dr. C. W. Hitchcock have returned from medical pilgrimages in Europe.

The Interstate Medical Journal of St. Louis announces the purchase of the St. Louis Courier of Medicine, and its consolidation with the Interstate on July 1. This is the fourth medical journal purchased and absorbed by the Interstate during the past few years.

Dr. Howard A. Kelly is preparing a new work on medical gynecology soon to be issued.

At the annual meeting of the Blackwell Club of Detroit, which is composed entirely of women physicians, the following officers were elected: President, Dr. Harriet L. Hawkins; secretary-treasurer, Dr. Jean A. Vernier; councilors, Drs. Lucy J. Utter, Grace M. Clark, Juanita I. Lee.

The officers of the Wayne County Medical Society for the coming year are: President, Dr. Alva N. Collins; vice-president, Dr. Kenneth Gun-solus; secretary, Dr. Walter D. Ford (re-elected).

The city of Kalamazoo has provided a municipal tuberculosis colony on the hills in the neighborhood of the city.

Diphtheria has recently prevailed in Big Rapids, small-pox at Saginaw, Calumet, and Sturgis.

The Annual Commencement of the Detroit College of Medicine was held on May 31, when 69 students were graduated. The Alumni Association elected as president Dr. A. W. Ives, Detroit, and as secretary Dr. J. C. Dodds, Detroit. The alumni clinic week was very successful, continuing from May 22 to 30, and presenting such men as Turck, Patrick, Jacobi, Forscheimer, C. A. L. Reed and Chevalier Jackson.

Dr. Samuel Gurney, formerly of Detroit, now of the Philippine constabulary service, has been promoted, and now holds the equivalent of the captain's grade.

The Rockefeller Institute has recently made appointments for research work. Among the grants to aid special researches are those to Dr. F. G. Novy and Dr. A. S. Warthin, Ann Arbor.

Dr. Flemming Carrow, Detroit, has been appointed a member of the State Board of Registration in Medicine, in place of Walter H. Sawyer, Hillsdale, and Dr. Jos. H. Ball, Bay City, as successor to Dr. Oscar Le Seure, Detroit. Drs. Theodore A. Felch, Ishpeming, and Henry C. Maynard, Hartford, were reappointed.

Dr. Frank B. Allison, recently house physician at Harper Hospital, resigned to enter private practice with Dr. J. A. MacMillan, Detroit.

Drs. N. A. Mallory, L. C. Pike, Wm. P. Melody, and F. B. Stutske have been appointed city physicians of Detroit, and Dr. J. W. Hoffman reappointed as pharmacist.

Dr. F. N. Blanchard, of Detroit, was recently operated on for appendicitis at Harper Hospital.

Dr. W. B. James, assistant medical superintendent at the Wayne County House, tendered his resignation the first of July, and will enter a business firm in Marysville.

Dr. H. E. Clarke, for several years on the staff of the East Michigan Hospital at Pontiac, has accepted a position as assistant physician at the Oak Grove Sanitarium, Flint.

The L'Esperance medical bill passed the senate early in June.

Dr. George C. Chene, recently graduated from a service at St. Mary's Hospital, Detroit, has entered practice, being associated with Dr. P. M. Hickey, of Detroit.

Dr. James P. McMurrich has resigned the professorship of anatomy at the University of

Michigan, and will go to the University of Toronto.

Dr. R. C. Olin, of Detroit, has been appointed a member of the U. S. board of pension examiners, to succeed Dr. J. F. Bennett, resigned.

The Board of Directors of the Wayne County Medical Society for the coming year are Drs. H. W. Yates, J. N. Bell, G. L. Kiefer, P. M. Hickey, Florence Huson. The section officers are: Medical, chairman, Dr. A. W. Ives, secretary, Dr. J. E. Davis; surgical, chairman, Dr. J. A. MacMillan, secretary, Dr. C. E. Simpson.

The new milk commission in Detroit, appointed by Dr. Carstens, president of Wayne County Medical Society, is as follows: Chairman, Dr. R. S. Rowland; members, Drs. C. E. Jennings, Charles Douglas, W. J. Wilson, Jr., E. H. Hayward, G. L. Kiefer, T. B. Cooley, H. M. Rich, N. Jenks.

In May there were 20 new cases of small-pox reported in Detroit.

Dr. Emil Amberg, of Detroit, is in Germany for a two months' rest.

The 35th annual meeting of the Northern Tri-State Medical Association was held in Detroit on July 9. The officers were: President, Dr. C. D. Aaron, Detroit; vice-president, Dr. Theo. F. Wood, Angola, Ind.; treasurer, Dr. J. A. Weitz, Montpelier, O.; secretary, Dr. Wm. F. Shumaker, Butler, Ind. The papers offered were as follows: President's address; "Recent Observations in the Physiology of Digestion," Charles D. Aaron, Detroit, Mich.; "Management of Infectious Diseases, with Special Reference to Measles and Scarlet Fever," I. J. Becknell, Goshen, Ind.; "Multiple Aneurism of the Internal Carotid," Chas. Stortz, South Bend, Ind.; "Proper Applications and Proper Dressings in the Treatment of Diseases of the Skin," Andrew P. Biddle, Detroit, Mich.; "The Opsonic Index in X-Ray Therapeutics," A. W. Crane, Kalamazoo, Mich.; "Basedow's Disease with Special Reference to Prevalence and Importance in the Lower Lake Region," J. P. Sawyer, Cleveland, O.; "The Present Status of Our Knowledge of Therapeutics," J. A. Weitz, Montpelier, O.; "Some Professional Fallacies," W. H. Baldwin, Quincy, Mich.; "Litholopaxy," F. W. Robbins, Detroit, Mich.; "Infectious Arthritis of Tonsillar Origin," P. M. Hickey, Detroit, Mich.; "A Critical Review of the Treatment of Epilepsy," C. J. Aldrich, Cleveland, O.; "Brain Tumor and Hysteria," C. B. Burr, Flint, Mich.; "Value of Laryngoscopy in the Management of



Asthma," E. L. Shurly, Detroit, Mich.; "The Management of Some Cases of Intestinal Obstruction," C. G. Darling, Ann Arbor, Mich.; "Migraine," G. W. Spohn, Elkhart, Ind.; Acute Hemorrhagic Pancreatitis. Report of Case," H. A. Duemling, Fort Wayne, Ind.; "Thyroidectomy," with the report of a case, B. VanSweringen, Fort Wayne, Ind.; "A Plea for More Skillful Fitting of Glasses," A. E. Bulson, Fort Wayne, Ind.; illustrated lecture by Prof. A. H. Griffith on "Medicine and Surgery Among the Ancients." The reception committee were H. O. Walker, J. H. Carstens, L. J. Hirschman, A. D. Holmes, C. F. Kuhn, B. R. Shurly.

Dr. A. P. Ohlmacher has resigned from his duties in the biological laboratory of the Frederick Stearns Co., and taken up private practice, devoting his time wholly to the work of opsonic therapy, in offices at 301-3 Breitmeyer Building, Detroit.

Dr. Charles B. Macartney, first assistant physician at Oak Grove Sanatorium, Flint, has resigned and will sail for Europe August 23.

Dr. H. A. Haynes, for five years physician at the Michigan reformatory, has tendered his resignation, to take immediate effect. He has been appointed assistant superintendent at the home for the feeble-minded and epileptic at Lapeer and goes there August 1st.

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## Marriages

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Dr. B. C. Le Vanseler, of St. Johns, to Miss Bessie Austin Wood, of Milford, June 27, at the bride's home.

Dr. Neil McVicar, of Lum, to Miss Vena Dahn, of Inlay City, on June 21, at the bride's home.

Dr. Robert Baird, of Howell, to Miss Lucy Ladd, of Lansing, June 12.

Dr. John Newell Holcomb to Miss Edith L. Smith, both of Grand Rapids, June 16.

Dr. Wilfrid Henry Haughey, of Battle Creek, to Miss Edythe Louisa Cowles, of Sand Lake, at St. Clara's church, Maple Valley, June 27.

Dr. S. E. Galbraith to Miss Mary A. Wisner, both of Pontiac, June 19.

Dr. Robert Bennett Dean, of Ann Arbor, to Miss Adelaide Leiper Martin, in Baltimore, May 22.

Dr. Burton D. Parker to Miss Tilla Louise Swales, both of Detroit, June 11.

Dr. William J. LeH. Lyster, assistant surgeon U. S. N., to Miss Alice C. Bissell, of Detroit, May 28.

Dr. Albert J. Drolett, of Lansing, to Miss Grace Lundy, of Detroit, June 1.

Dr. Edward E. Webber, of Marlette, to Miss C. Loise Kohler, of Rochester, N. Y., June 5.

Dr. Robert Underwood, of Detroit, to Miss Katherine Edgington, of Memphis, Tenn., June 5.

Dr. John B. Donaldson, of Lorain, Ohio, to Miss Ida Kindler, of Saginaw, June 27.

Dr. Harold M. Doolittle to Miss Leda Stimson, both of Grand Rapids, June 4.

Dr. Henry L. Charles to Miss Cora I. Hurd, both of Paw Paw, May 29.

Dr. J. H. Crosby to Miss Fannie Cross, both of Otsego, June 17.

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## Deaths

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Henry Tremain, M. D., of Ionia, died at his home on June 3, aged 59 years.

Carlos Fred Higgs, M. D., of Deerfield, died in Harper Hospital after an operation, June 17, aged 27.

Joseph Addison Burke, M. D., of New Lathrop, died at the Nichols Hospital in Battle Creek, from a general breakdown, May 2, aged 31.

John Mastenbroek, M. D., died at his home in Grand Haven, recently, aged 76.

Robert M. Ianson, M. D., died at his home in Ingalls, March 17, from pneumonia, aged 64.

Oliver La Crone, M. D., of Kalamazoo, died in Mercy Hospital, Chicago, July 18, as the result of an operation performed a week ago, aged 48 years.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Serum Diagnosis in Syphilis.**—SCHUTZE reports his results with Wassermann's method of demonstrating antibodies in the spinal fluid of syphilitics. In eight tabetics, using every precaution as regards controls, etc., he was able to obtain a definite reaction. In four other cases, where syphilitic history was lacking, his results were negative.

He believes that this reaction would considerably enrich our means of diagnosis if it could be simplified to allow of more general use.—*Berl. Klin. Wochenschr.*, 1907, p. 126.

**Dysentery.**—KRUSE concludes from observations during the last four years that in Germany dysentery is almost exclusively of the bacillary type, and that in this two forms are to be distinguished, true dysentery and pseudo-dysentery. Pseudo-dysentery as a rule does not present such typical symptoms, and its prognosis is better. The bacillus of true dysentery is as a rule only to be distinguished by its specific serum reaction. A number of different bacilli may give rise to pseudo-dysentery; KRUSE distinguishes six types. He considers it possible, also, that intestinal bacteria commonly harmless may have their virulence so increased as to give rise to dysenteric manifestations.—*Deutsch. Med. Woch.*, 1907, p. 292.

**Psychosis in Gout.**—MENDEL comes to the following conclusions: "In very rare cases after a severe attack of gout with fever there occurs an acute psychosis, which is accompanied by clouded consciousness and decided hallucinations and clinically is to be described as delirium hallucinatorium. Rarely an active psychosis replaces the gout attack, running a very short course. In exceedingly rare cases an attack of gout causes recovery from a psychosis which has existed unchanged for months or years.

The concurrence of psychosis and gout attacks is so uncommon that we are not justified in speaking of "gout-psychosis."—*Deutsch. Arch. fur Klin. Med.*, Vol. 89, p. 159.

**Treatment of Severe Anemias by Blood Transfusion.**—MORAWITZ treated six cases of anemia (one of severe anemia with leukemic blood picture, three of anemia gravis, one of moderately severe anemia, and one of severe

aplastic anemia) with transfusions of 150-200 C. C. of defibrinized human blood. In two cases the immediate effects of the transfusion were alarming. In judging the final results, two cases were under observation for too short a period to draw definite conclusions. The case of aplastic anemia was uninfluenced. The case with leukemic blood-picture and two of Anemia Gravis showed remarkable improvement. In the first, 3 weeks arsenic treatment had given no results; the other two had seemed to offer a thoroughly unfavorable progress. The improvement did not at any time appear immediately after the transfusion, but always after a lapse of several days, so that any direct action of the injected blood is not to be assumed, even if the amount were not too small. The assumption is, that in certain cases of anemia the injection of foreign blood in some way or other stimulates the bone marrow, which will not react either to the stimulus of its own blood or to drugs, to increased activity.—*Muench. Med. Wochenschr.*, Apr., 1907.

**Primary Intestinal Tuberculosis from Milk Infection.**—SBIGER and JENSEN report two cases of certain milk infection encountered in the course of their work on primary intestinal tuberculosis. The first child, a 4 months old girl, had for 2½ months received daily a liter of raw milk. The autopsy showed unquestionable primary tuberculosis of the alimentary canal, and the bacilli found were in the highest degree virulent for cattle, producing the typical changes at the point of inoculation, as well as miliary tuberculosis. The second patient was a girl of 1½ years, of healthy parents. The father was a milk dealer, to whom for three years milk had been furnished from a highly infected dairy; in one cow there was udder-tuberculosis. Autopsy showed here also unquestionable primary intestinal tuberculosis with miliary tubercles in lungs and liver. The animal injections showed the same high degree of virulence.

The authors believe that a large number of the cases of primary intestinal tuberculosis in children are the result of infection with the bovine bacillus, while in adults the question remains undecided.—*Berl. Klin. Wochenschr.*, 1907, pp. 93 and 134.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**Gangrene of the Communicating Loop Between two Loops of Intestines in a Strangulated Hernia.**—Strangulation of two loops of intestines with consecutive gangrene of the intestine between the two strangulated parts, called by some "retrograde strangulation"—has been observed in inguinal and femoral herniae, and about six such cases have been published. Most of the authors consider as reason for this retrograde necrosis strangulation of the mesenterial vessels going to the communicating loop. LAUENSTEIN shows by experiments on animals that this direct strangulation of these blood-vessels is only possible if the communicating loop is very short, about 8 cm., but in three cases recorded, the necrotic intestine was 25, 60 and 70 cm. respectively. It is very important after this communication to inspect most carefully the communicating intestinal part in case two strangulated loops are found in a hernia, as gangrene of that part is probable.—*Zentralblatt fuer Chirurgie*, 1907, No. 27.

**End Results of 376 Primary Operations of Carcinoma of the Breast at the Massachusetts General Hospital, between Jan. 1, 1894, and Jan. 1, 1904.**—Out of 416 cases of primary operations for cancer of the breast at the Massachusetts General Hospital from 1894 to 1903 inclusive, 376 were traced to a conclusive end-result at an average period of eight years after operation. Sixty-four cases were alive and well and seven died without recurrence over three years after the operation. Counting in the operative mortality, there were 320 attempts at radical cure, 67 of which, or 20.9 per cent, were successful. During this same period palliative operations were performed on 56 patients (16 per cent) and 52 cases were discharged untreated. Cases in which the tumor was ulcerated, or was adherent to the skin or to the chest wall, and cases in which the axillary glands were palpably enlarged, gave notably less promising results than when these conditions did not exist. No case with palpably enlarged cancerous glands above the clavicle, and no case of cancer of both breasts was cured.

Medullary carcinoma was more grave than that of the scirrhus type, and adenocarcinoma and colloid were relatively of a far less malignant type. The duration of the disease, other than in the individual case, exerted little influence on prognosis.

Extensive operations with wide removal of skin gave the greatest freedom from local recur-

rence. Removal of the pectoralis minor appeared to be of slight significance. Incomplete operations on early cases yielded better results than extensive operations on cases which were well advanced.

Recurrence in the scar occurred in less than one half of the cases. Internal metastasis was most frequent in the lungs, mediastinum, in the axillary and supraclavicular glands, the liver and the spine.

Seventeen out of 88 cases, or 19 per cent of those passing the three-year limit without evidence of recurrence, showed recurrence later, and four cases developed recurrence six years or more after the operation.—ROBERT B. GREENOUGH, M. D.; CHANNING C. SIMMONS, M. D.; J. DELINGER BARNEY, M. D., *Annals of Surgery*, July, 1907.

**Cholecyst-Entero-Anastomosis Retrocolica.**—There are only a few cases where the obstruction of the common duct cannot be overcome by ordinary surgical procedures, and anastomosis between gall bladder and intestines comes into consideration. BRENTANO recommends a new method for such anastomosis, namely, to bring the first loop of the jejunum upward, through a hole in the mesocolon and then make retrocolic the anastomosis between gall-bladder and jejunum; the method being an exact imitation of the well-known technique of retrocolic gastro-enterostomy. The only point to be added, is that the usually over-filled gall bladder is first emptied by a fine trocar in order to facilitate handling of the organ. Clamps on the jejunal loop protect the field from soiling during suturing, and finally the place of anastomosis is anchored by three or four stitches on the sides of the hole in the mesocolon.—BRENTANO. *Zentralblatt fuer Chirurgie*, 1907, No. 24.

**Accessory Pancreas.**—In KUESTER's clinic a woman 64 years old was operated upon for obstruction of the common bile duct. After removal of the obstructing gall stone, a flat, soft tumor of about an inch in circumference was discovered in the anterior wall of the pylorus. The tumor was excised. The patient died from peritonitis. The tumor was found to consist of typical pancreatic tissue, and had to be considered an accessory pancreatic gland as they were described before in literature.—*Deutsche Zeitschrift fuer Chirurgie*, Vol. 85, page 892.



## GYNECOLOGY.

Conducted by

B. R. SCHENCK, M. D.

**Gonorrhea in Women.**—A recent issue of the Medical Record contains a valuable trio of papers on this subject.

STONE believes that the urethra in women rarely escapes infection, and that its entire length is usually involved, but the disease is milder and of shorter duration than in the male. Gonorrheal cystitis rarely occurs and the symptoms usually referred to it are due to urethritis. Stricture of the urethra has been seen by the author only once in twelve years' experience in a large clinic. Treatment should be water internally, instructions as to dirt and contagion, and hot applications to the genitals. Injections in the acute form should not be used. Gonorrheal vaginitis is rare except in young girls, and elderly women. The latter with a gonorrheal endometritis of long standing may show a profuse purulent discharge from the urethra with it. The ducts of Bartholin's glands are the portion that is affected, not the glands themselves, due to stagnation of discharges about the genitals. Examination for pus in these glands and the urethra will give valuable aid in the diagnosis of gonorrhea.

COE tells us that the intact mucosa of the vagina is rarely infected by the gonococcus. It may enter the cervix at once, or attack the glands of Bartholin, or vulva, but bladder infections are rare. The gonococci are aided by their tonic products in producing the changes seen. Latent gonorrhea is frequent. The muscular walls of the uterus may be invaded and lymphatic infection of it occasionally occurs. Gonorrheal cellulitis and rheumatism are rare in the woman. The stroma of the ovary is probably not primarily affected by way of the lymph channels. Acute oöphoritis is due to mixed infection, all sorts of micro-organisms being found in the secretions. Irrigation and drainage are generally not needed in tube cases, since the pus is sterile, or the infected point is away from the penetration of the injection. Gonorrheal infection when seen by the surgeon is generally of long standing. Appendicitis is often combined with tuboovarian disease. As to cure, under rest and hot douches with tampons a symptomatic cure may be obtained, al-

though restoration of tissues to the normal is impossible. Sterility is apt to be the fault of azoöspemia in the male.

EDGAR says that his observation leads him to view gonorrheal infection in the pregnant woman in an optimistic light. Women who contract gonorrhea in pregnancy do not necessarily suffer as far as pregnancy is concerned. Its results are seen at the time of labor and the puerperium in a gonorrheal ophthalmia and infection of the uterus, tubes, and pelvic peritoneum and are most serious. The vaginal secretions have no bactericidal effect on the gonococcus.—*Medical Record*, April 27, 1907.

**Heart Disease in Relation to Pregnancy.**—

While it is probable that the heart must do increased work during pregnancy, this, according to BLACKER, has not been proved. It is an old idea that the heart, during pregnancy, normally hypertrophies, but this is not proved for all cases. In some cases, uniform hypertrophy has been demonstrated, in others there have been found hypertrophy of the left ventricle and dilatation of the right heart. In some healthy women, neither hypertrophy nor dilatation occurs. In pregnancy, there are no characteristic changes in the pulse.

When pregnancy is complicated by heart disease, one must guard against the possible occurrence of cardiac failure, and the patient be carefully watched. When, following delivery, there are evidences of over-distention of the right heart, post partum hemorrhage should be encouraged or even venesection resorted to.

Should a woman with a heart lesion be permitted to marry? BLACKER takes a moderate view of this question, because he believes that the majority of these patients pass through pregnancy and parturition safely. When the lesion is compensated, the patient may marry. Cardiac failure will probably sooner or later occur, whether or not the patient undergoes a pregnancy. It is true that a pregnancy may precipitate this failure, but the author doubts whether the risk is sufficiently great to justify the physician in forbidding marriage.—*Br. Med. Jour.*, May 25, 1907.

## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**Unusual Case of Drug-rash from Chloral.**—

Drug rashes are usually traceable to one of two sources: Either the patient has an idiosyncrasy or the exanthem has followed the prolonged use or an enormous dose of the drug. In psychiatric clinics large quantities of hypnotics are frequently administered to produce quiet. GREGOR reports a case of paranoia with marked motor symptoms, who in addition to therapeutic baths was given at different times large doses of veronal, extract opii, chloral, propanal, isopral, trional and morphine. After the administration of two grams of chloral two days in succession, the patient developed an exanthem on his right forearm which rapidly spread over his body. The rash was dark red, consisting of maculo-papules which became confluent in some areas forming large patches. Small petechia developed about the legs. Blebs appeared about the face and neck. The exanthem began to fade in about seven days with marked desquamation, the skin coming off in large casts in places. In addition the patient developed a marked temperature which rose at one time to 104. He had a severe conjunctivitis together with a hemorrhagic bronchitis which persisted for some time after the disappearance of the rash.—*Muenchener Medizinische Wochenschrift*, April 23, 1907.

**Trymol in the Treatment of Goitre.**—

McCARRISON has met with good results in the treatment of endemic goiter by the administration of thymol. He has lately reported twenty-five cases successfully treated with this drug and in a few instances noted a disappearance of the enlargement in seventeen days. He recommends giving thymol twice a week, 1.8 gram each time, followed by a cathartic in the evening. During the intervening days 0.6 gram is given morning and evening. He continues administration of the drug till the goiter has disappeared. He claims to have seen improvement in all his cases.—*Medical Record*, June 22, 1907, p. 1037.

**Tea, Coffee and Tobacco in Diseases of the Stomach.**—It cannot be denied that the use of

tea, coffee and tobacco has certain influences upon the gastrointestinal tract in the Neuroses. CRÄMER thinks it advisable to limit, if not forbid, their use in all gastric conditions. In hyperacidity only very weak coffee should be drunk because of its influence in increasing secretion. Tea might better replace it. Smoking should be interdicted and coffee allowed because of its stimulating effect upon the flow of gastric juice. Smoking should be prohibited in these cases.

In motor insufficiency smoking should also be reduced or completely stopped if followed by an uncomfortable feeling in the stomach. The effects of tea and coffee on the motor power are not known and probably have little influence.—*Muenchener Medizinische Wochenschrift*, May 14, 1907.

**Bismuth Subnitrate in the Treatment of Gastropathies and Enteropathies.**—

HAYEM has been using bismuth subnitrate in digestive disorders, claiming it to be the most harmless of all the metals in the treatment of gastrointestinal diseases. He has not met with success in employing it in cases of gastralgia, ulcer, and hyperacidity. In the latter group of cases its superiority to sodium bicarbonate is marked in that it relieves the pain and has no tendency to stimulate secretion later. HAYEM does not find the administration of the bismuth subnitrate contraindicated in cases of constipation associated with hyperchlorhydria, for in small doses it seems to exert a laxative effect. He uses 15 to 20 grammes in a half glassful of water. He finds it useful especially in cases of muco-membranous enteritis that are oftentimes associated with constipation. In these it also exerts an astringent effect.—*La Clinique*, May, 1907.

**Gelatin Injections in Cancer.**—

HAUER in a severe case of hemorrhage from a cancer, gave several subcutaneous injections of gelatin. A slight febrile reaction was first noted, but later the hemorrhage ceased and the patient's condition improved.—*Journal de Médecine de Bordeaux*, April, 1907.



## PEDIATRICS

Conducted by

R. S. ROWLAND, M. D.

**The Prevention of the Acute Intestinal Diseases of Summer.**—The following practical suggestions are abstracts from Kerley's recent work on "The Treatment of the Diseases of Children."

He says that the potent etiologic factors in summer diarrhea are unfavorable climate and unfavorable environment. In the class which furnishes the largest mortality, climate cannot be changed for a sufficient number to exert any great influence on the general mortality. Through education the environment may be radically improved, but it cannot be changed. Other than climate and environment, the determining factors among all classes are: First, a disordered gastro-enteric tract; second, infected food; third, faulty feeding methods; fourth, an absence of appreciation on the part of the parents and physicians of the fact that an attack of diarrhea or vomiting, or even a green undigested stool, occurring in an infant under 18 months of age during the hot weather, is to be looked upon as a serious matter requiring prompt attention.

The principal immediate cause is an infection of the gastro-enteric contents by bacteria. The infecting elements are usually introduced by means of contaminated food and unclean feeding apparatus.

KERLEY observes that the majority of the infant population in a large city are fed on milk, which, for them, is not a safe food; and it is among these infants that the large mortality occurs and will continue in spite of sea-shore visits, daily excursions, and the efforts of the summer corps of Health Department physicians. It will continue until every large municipality shall establish milk depots and ice stations where safe milk, and ice to keep it safe, may be obtained at normal cost, or free, if the parents are unable to pay for it. A visiting physician for these people is not absolutely necessary, nor is a trained nurse, as both are expensive luxuries; but what is necessary is the appointment, for a given district, of women with just plain common sense to teach the uninformed mothers, who are doing their best according to the lights they have, the simple details of the infant care, easily carried out when they know how but so rarely done because they do not know how.

At the established dispensaries there is a surprisingly low summer diarrhea mortality because the mothers have been taught how to feed and care for their children all the year around. They are taught the value of fresh air, the use of boiled water as a beverage, and the benefits of frequent spongings on hot days. Both private and dispensary mothers whose children are under the writer's care are given pamphlets of instruction and also oral teaching, bearing on these points, and particularly as to the care of

the feeding bottle and milk. In case special articles of diet are to be given, they are taught how to prepare them.

Written directions are always given covering these points; nothing is left to the memory. Each mother and nurse has it impressed upon her that she must wash her hands in soap and water before touching the baby's food or feeding apparatus for any purpose, and that there must be a covered vessel in which soiled napkins are to be kept until washed. At the first sign of intestinal derangement, regardless of the season of the year, they are taught to stop the milk at once, to give instead a cereal water, such as barley water or rice water, and a dose of castor oil. It is impressed upon them that in winter as well as summer, a green watery stool means that the baby is ill and needs treatment. When the mother learns the above lesson for December, January, and March she will not forget it in July. Furthermore, as a result of the immediate correction of a child's digestive disorder during the winter months, we have a much less fertile field for pathogenic bacteria during the summer.

Comparatively few cases of intestinal disease have pronounced toxic symptoms at the onset. At first there are evidences of a mild infection only. There may be no vomiting, with several green watery stools, with a slight elevation of temperature, or the symptoms may be still more mild—only one or two loose green defecations. Prompt treatment at this time, even in a crowded tenement, usually means prompt recovery. When the treatment is delayed, when the administration of milk is continued, severe toxic symptoms and intestinal lesions are almost invariably the result.

It will be seen from the foregoing that the suggestions offered are all included under the one general heading of Education. The mother must be educated how to care for the baby, how to clothe him and bathe him during the summer. It must be impressed upon her that he needs all the fresh air available. She must be educated to the point of knowing what to do at the first sign of threatened disease. Municipalities must be educated to appreciate their responsibility as factors, negative or positive, in the summer mortality. The farmer must be educated as to how to produce safe milk, and the consumer must be educated to appreciate its value and pay for it. Above all others, the physician must be educated along these lines so as to be able to teach the mother how to do the right thing as to the care of her children all the year round.—*Treatment of the Diseases of Children*, by CHARLES GLINON KERLEY, M. D. (W. B. Saunders Company, 1907.)



## OPHTHALMOLOGY

Conducted by

W. R. PARKER, M. D.

**Avoidable Diseases of the Eye.**—PROF. C. HESS, of Wuerzburg, after imagining an Utopian country in which every oculist is entrusted with the responsibility of looking after a certain part of the community, presents a picture of what might be accomplished.

Even the first step in life brings with it dangers of infection. Pneumococci, staphylococci, streptococci, gonococci, etc., may during parturition get into the conjunctival sac; and lead to conditions which if not properly treated might lead to blindness. Ophthalmia neonatorum has been reduced from 9 per cent to below 1 per cent by the employment of the Credé method. Ophthalmia neonatorum is responsible for 20 per cent of the cases of blindness in the asylums for the blind.

The oculist frequently meets with conjunctival and corneal troubles of an eczematous character occurring among children of the poorer classes with resulting opacities of the cornea and serious damage to the eyes, which might have been obviated if the cases had been seen in the first stages of the disease. Serpiginous ulcer of the cornea, usually occurring in the poorer classes, is frequently neglected. A simple epiphora should not be overlooked, but its cause sought for. So far as disease of the iris is concerned, we have to deal principally with the recurrent form of iritis. This not being painful, is usually neglected; consequently when the oculist is ultimately consulted the iris is adherent to the lens, the pupil covered with exudative material and vision is permanently injured or destroyed by secondary glaucoma. Even these patients might be saved from blindness if properly treated.

The same applies to choroiditis, providing the patients come to us at the beginning of their troubles and before the foveal region is hopelessly destroyed by the disease. Chronic glaucoma may be accompanied by very little pain, and, therefore, patients do not seek medical aid until vision is entirely destroyed. In such cases an operation, if performed early, would probably prevent blindness in many cases. The majority of diseases of the optic nerve—atrophy, hemianopsia, etc.—are at the present time absolutely beyond our control. On the other hand, atrophy of the optic nerve due to alcohol and nicotine poisoning is within the sphere of prevention. We can prevent serious injury to the eye by the cor-

rection of errors of refraction. A moderate degree of hypermetropia is in early youth often the cause of convergent squint, which, if left to itself, will lead in the squinting eye to irreparably defective vision. Within the last ten years it has been generally recognized that squint may be cured and vision saved by prescribing proper lenses at the earliest date possible. Regarding myopia and its correction, some oculists claim it is better to prescribe weak lenses, while others think it better to do without lenses altogether. Experience and statistics have proved the fallacy of either of these theories. The early prescribing of lenses which fully correct the existing myopia checks its progress in most instances and tends to prevent serious consequences, such as choroiditis and retinal detachment. Blindness in both eyes, due to sympathetic ophthalmia, can in many instances be prevented.

The dangers and sequelae arising from trachoma might be reduced to a minimum if treatment were begun early. Retinitis pigmentosa is in more than 60 per cent of all cases due to inter-marrying of relatives, which if prevented would save a good many from blindness. The same applies to legislation forbidding marriages where a high degree of myopia exists on both sides. The significance of diseases of the eyes and congenital syphilis is so well known that further comment is unnecessary; in any case the eye troubles are of secondary importance. The same applies to xerosis and keratomalacia in marasmic children, although suitable food and care can accomplish a good deal in this direction.

Many eyes are lost through accidents due to criminal negligence; toy pistols, fire crackers, toy guns, throwing of stones among children, allowing children to play with scissors, etc.

"Furthermore, it is interesting to note that in Austria, where compulsory vaccination does not exist, 20 to 30 per cent of the inmates of the asylums of the blind contracted blindness through smallpox. In Germany, where vaccination is compulsory, only one per cent of the inmates of blind asylums are blind from smallpox; certainly an argument that even the most obstinate adversary of vaccination must accept. The number of blind people in Germany is about 30,000; on the strength of these statistics at least one-half of the total cases of blindness could have been absolutely prevented."—*Ophthalmic Review*, May, 1907.

## OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

**The Value of v. Stein's Symptom in the Diagnosis of Labyrinthine Suppuration.—**

EAGLETON states that out of seventeen consecutive cases of tympanic exenteration, for chronic suppuration, seven, or, 41 per cent, were found to have fistulae leading into the labyrinth, while three were not yet operated upon presented symptoms warranting such a diagnosis. Of the seven cases, two had disease of the cochlea and semicircular canals, the remaining five being of the semicircular canals alone. Von Stein in 1904 called attention to the presence of a peculiar inability of patients suffering from labyrinthine suppuration to execute certain delicate coördinative movements. Thus, with the feet placed together, especially when the eyes are closed, such patients cannot repeatedly jump with the degree of assurance of a normal person, but are compelled to catch themselves after one or two jumps, by throwing one foot out. In some cases this is so marked that they are unable so to jump even with the eyes open. This symptom was present in all of the eight cases of labyrinthine suppuration reported by him, in which subsequent operation verified the diagnosis. EAGLETON has applied the Von Stein test on all his private, and many dispensary cases suffering from chronic otitis, besides many perfectly normal persons, so that he observed between two and three hundred persons altogether. He draws the following conclusions: First, a normal person not suffering from disease of the labyrinth, suppurative or otherwise, jumps with his eyes closed with a degree of assurance not perhaps on the first attempt, but surely on the second or third. Second, in applying the test, age must be considered, as past middle life normal persons while jumping slowly but accurately for a few feet, soon tire and so lose the accuracy of the movement, probably from exhaustion. Third, the symptom has a value in chronic non-suppurative aural disease in which the labyrinth has become affected. Fourth, the symptom is very valuable in labyrinthine suppuration, especially in the chronic suppurations of the semicircular canals, and in such may be the only symptom of the condition. It was present in at least five of his cases and probably in all, had it been sought for prior to the operation. It would appear that the symptoms of suppuration of the labyrinth, where the semicircular canals at least are involved, may be divided into three stages: An active stage, or stage of irritation, with dizziness, with great impairment of co-ordinate dynamic movements, associated perhaps with nausea, vom-

iting and nystagmus; second, a paralytic or latent stage, in which all symptoms are absent excepting the inability to perform with closed eyes certain delicate co-ordinate movements requiring both a correct orientation and accurate co-ordination; and third, even this may disappear, especially in young persons, after drainage of the labyrinth and perhaps without it.—*Archives of Otolaryngology*, June, 1907.

**Indications for Opening a Purulently Affected Labyrinth.—**

HINSBERG says that the operation, to his mind, is always necessary when an exact functional examination (deafness and symptoms of irritation or defect of the vestibular apparatus) and the conditions found on exposing the middle ear cavities show us that extensive disease of the labyrinth is present. If the functional examination and the operation point to a circumscribed disease of the semicircular canal, or if at operation a labyrinth fistula cannot be definitely proved, he thinks it is best at first to wait, then to operate secondarily if the symptoms of irritation which were present before the operation do not quickly disappear, or, if these should appear first after the operation on the middle ear. Moreover, the suspicion that an endo-cranial complication is present or threatens indicates the opening of the diseased labyrinth. It is perfectly reasonable to say that during the operation a circumscribed suppuration has been allowed to extend, through careless use of the probe, concussion from the chisel, retention from too firm packing, etc. It is very important to watch very carefully after the operation a patient who presents an apparently isolated fistula of the semicircular canal at the time of exposing the middle ear cavities, so that symptoms pointing to an extension in the inner ear shall not be overlooked. As soon as he is assured that the encapsulated suppuration has become extensive, the broad exposure of the labyrinth cavities must be undertaken on account of the danger of a retention of pus in the interior of the labyrinth. The cases with the formation of sequestra in the labyrinth are to be regarded, for indications to operate, as diffuse labyrinth suppurations. The conditions, however, are quite different if the sequestrum is not freely movable. Forced loosening has caused von Stein in many cases injury to the carotoid artery. HINSBERG states that it must not be forgotten that a meningitis is always to be feared in these cases, a condition which makes the decision difficult.—*Archives of Otolaryngology*, June, 1907.



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## Original Articles

### DISSEMINATED PERIPHERAL NERVE-IRRITATION AND NERVOUS EXHAUSTION—AN ANALYSIS OF 350 CASES\*

THEO. KLINGMANN, Ph. C., M. D.,  
Ann Arbor.

Probably no terms in the nomenclature of nervous diseases are misused more frequently than those of neuritis and neurasthenia. In the former the diagnosis is frequently based upon one symptom, and that is a nerve-tenderness which is only a subjective sign and varies greatly in healthy individuals. In the latter almost any form of nervousness which cannot be accounted for by some organic disease is placed under this head. If, however, we rely on only positive signs, we shall soon learn that this is erroneous and, unless the practitioner adopts a very comprehensive definition, conclusions of any kind regarding these conditions are likely to go astray.

In recognition of these facts the author has been forced to adopt the above title for want of a better name in grouping a class of cases presenting the symptom-complex of general nervousness, fatigue and nerve-tenderness.

Because of the indefiniteness and the great variation in these conditions, it is well to come to an understanding of

what is meant by neurasthenia and neuritis for herein lies the explanation for the prevalence of the different opinions regarding the pathognomy of these disorders.

Neurasthenia has long been regarded as an irritable weakness in which all forms of nervous energy are reduced. It is marked by many subjective symptoms and very few objective phenomena, all more or less variable and inconstant. Charcot<sup>1</sup> regards headache, backache, gastro-intestinal atony, neuro-muscular weakness, cerebral depression, mental irritability and insomnia the true stigmata of the disorder. Secondarily and of less importance arise a host of subjective symptoms, the most frequent are tremor and muscular twitchings, increased tendon reflexes, general tiredness, tenderness over certain points over the spine, hypersensitiveness of the head and the extremities, spontaneous pain, visual disturbances, cardiac palpitation, vasomotor storms, incapacity for mental work and rapidly exhausted retinal sensitiveness.

As to neuritis, authors of the most recent works tell us that the peripheral

<sup>1</sup>"*Revue Neurol.*," Aug. 15, 1905.

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nerves are subject to inflammatory action of every grade of severity and the anatomical changes in neuritis vary according to the intensity of the process and the particular elements in the nerve-trunk that are most affected. Consequently the symptoms of neuritis vary greatly whether it is a perineuritis and adventitious neuritis or parenchymatous form, this distinction, however, is theoretical rather than clinical because it is not possible to draw a definite line between them in most cases. Briefly stated, the symptoms are either those of irritation, or those of the destruction of the conducting function of nerve fibres. All varieties of paresthesia, pain and tenderness along the course of the nerve, hyperesthesia or diminished sensitiveness, or both. Paresis, paralysis, trophic losses in the skin and muscles, and changed electrical excitability are the resulting symptoms as the case may be and the diagnosis must be based upon a group of definite symptoms, if we regard the condition as an inflammation in the nerve-trunk which is subject to the same pathological conditions occurring other tissues of the body during an inflammatory process.

These are established facts with which we are all familiar, and the original purpose of this paper is not to bring out new theories but to make a plea for scrutiny in the analysis of cases of nervousness which present indefinite symptoms. Each and every complaint of the patient should be carefully considered and an attempt be made to find some pathological basis for the same. With this purpose in view, the author will attempt to make clear the necessity of this suggestion in citing a few of the numerous cases which present themselves for treatment, for the relief of a malady which has practically disabled them for a long period.

In taking 350 consecutive cases of general nerve-irritability in which the pre-

liminary diagnosis of neurasthenia, or neurasthenia and neuritis, was made, the author was able to divide them into three groups as follows:

1. Those patients suffering from a combination of mental and physical weakness and irritability, general hypersensitiveness and a reduction of all forms of nervous energy which tend to persist indefinitely and do not yield readily and relapse frequently.

2. Those cases in which a combination of abnormal motor, sensory and trophic phenomena exist in consequence of morbid changes in the peripheral nerve-trunks.

3. A class of patients that have definite and constant subjective symptoms depending upon a localized peripheral nerve-irritation resulting in nervous exhaustion which yield readily to treatment.

Seventy-three of the 350 cases belong to the first division which may be properly classed as neurasthenia, 38 to the second, which were cases of true neuritis with general nervous exhaustion, and 238 to the third, of which the following are typical cases.

CASE I.—Male, age 35, a native of Michigan and a farmer by occupation. He comes to the University Hospital on account of a general debility. Has been unable to follow his occupation for two years. He becomes easily fatigued and has a constant feeling of weakness and lassitude. Has occipital and frontal headaches, backache and a dull pain in the extremities, has not slept well for a prolonged period. He says that he is very nervous and fears that he will lose his mind.

There is nothing of interest in the family history, no neuropathic or psychopathic heredity, nor debilitating conditions in antecedents.

The patient is a man of good habits, smokes occasionally, uses no malt or spirituous liquors, his home surroundings are pleasant and is naturally of a happy disposition. He had the ordinary diseases of childhood before the age of ten and made good recovery. With the exception of an occasional disturbance of digestion, which consisted of distress after meals and gaseous eructa-

tions, he was well until about two or three years ago, when the present ailment began.

The first symptom he noticed was that he became more easily fatigued and was unusually tired after finishing the day's work. His sleep was disturbed and he felt tired and unrefreshed in the morning. He experienced a heaviness in the extremities, pain in the head and back, which he described as a dull ache. The gastric distress became more frequent. He was obliged to give up his work, became discouraged, apprehensive and emotional. He had been under treatment for two years without relief.

#### Preliminary diagnosis—Neurasthenia.

Physical examination.—The patient's facial expression is that of distress, otherwise his general appearance is good. He is well-nourished and of good physical development. The musculature is of good tone and muscular strength is good. Posture and gait not peculiar. The examination of the circulatory and respiratory system is negative. Tongue is slightly coated, teeth good, there is no abdominal tenderness, liver and spleen not palpable, bowels constipated. The patient stated that there is a sense of weight and pressure and sometimes burning in the epigastrium, usually associated with gaseous eructations occurring about an hour after meals. The stomach analysis revealed a marked hyperchlorhydria. This was somewhat variable.

There was no disturbance of the genito-urinary tract. The urine was rather scanty, the average amount in about 24 hours was about 540 cc. for the first few days after the patient was admitted. Specific gravity, 1020; acid reaction, the test for indican was positive, there is a small amount of sediment of uric acid and urates. Otherwise the examination was negative.

Blood examination.—Hemoglobin, 80 per cent; red blood corpuscles, 4,204,000; white corpuscles, 6,400.

Examination of the nervous system.—Muscular efforts easily fatigued, especially in the upper extremities. The hand-dynamometer registers 30 in the right hand and 20 in the left hand, repeated efforts showed diminished strength. There are no other motor disturbances. Electric irritability not changed. Aside from the feeling of general tiredness and fatigue, heaviness and pain in the extremities, there are no subjective sensory disturbances. Touch, pain and temperature sense are not disturbed. There is no superficial hyper-

sensitiveness of the skin nor over the spine. The patient complains of no pain on deep pressure over the spinous process. Deep pressure on the first lumbar spinal nerve at the point of exit causes marked pain, the same is true of the great sciatic; the great occipital, the musculo-cutaneous and the suprascapular. There are no visual disturbances, the visual fields are normal. The tendon reflexes are all very brisk, there is no ankle-clonus. All skin reflexes are active. The organic reflexes are not disturbed.

Clinical record.—The patient was put to bed. He had a sub-normal temperature varying from 97 to 98, the average pulse rate was 80. He was given hydrargyrum chlor. mit. 2 grs. in divided doses. But one portion of this was given. A saline laxative consisting of 120 grs. of sodium phosphate, 60 grs. of sodium sulphate was given him in a glass of hot water every morning, an hour before breakfast. Salol, 5 grs. four times daily before meals and at bed-time. Counter-irritation in the form of a canthos blister was applied over the tender points and repeated several times. After the localized tenderness was relieved, hydrotherapeutic measures were used, a cold shower with a brisk rub in the morning, a tepid bath at bed-time. There were no restrictions in the diet except in quantity. The rest in bed was continued for four weeks. At the end of the second week the patient was sleeping well, he felt refreshed in the morning, and at the end of the fourth week he was allowed to get up and take moderate exercise, resting two hours in the morning and two hours in the afternoon. He felt much stronger, but still became easily fatigued. The nerve-tenderness was greatly diminished. The urine was more copious (1,000 to 1,200 cc. in 24 hours), and the test for indican was negative. The temperature was 98.6, the pulse 80. At the end of the sixth week the patient was allowed to go home and four weeks later he was able to resume his occupation, feeling quite as well as ever.

CASE II.—Male, 41 years of age, a farmer, physically well-developed and of good general appearance. He presented himself for treatment of nervousness. He complained of headache, backache, pains and aches in the extremities and a general feeling of exhaustion. He sleeps poorly and is very irritable and fears his condition is serious.

History.—The family history is negative. The



patient's personal history is uneventful. He is a man of good habits. There is no history of vascular disease.

About five years ago he was obliged to give up his occupation on account of weakness and general exhaustion. He has lost energy and has no desire to work. This condition developed gradually with occasional remissions and exacerbations, he has been under treatment almost since the beginning of the trouble without relief.

Physical examination.—Posture is erect, musculature well-developed and of good tone. Muscular strength good, but becomes exhausted after repeated muscular effort. The skin is rather dry and slightly harsh.

The tongue is coated, appetite good; he has a feeling of fullness in the epigastrium and gaseous eructations after meals, bowels are constipated.

The examination of the respiratory and circulatory systems revealed nothing abnormal, the pulse is 82, the temperature 97.

The urine is scanty (490 cc. in 24 hours), highly colored, the specific gravity 1020, acid reaction. There is a fair amount of sediment, consisting of uric acid and urates. Indican was present.

The subjective sensations are a general feeling of exhaustion, with occasional dizziness, headache, backache, and wandering pains in the extremities.

The cutaneous sensibility is not disturbed in any part of the body. There is no hyperesthesia of the skin. Deep pressure over the great occipital, the musculo-cutaneous, the first lumbar and the sciatic caused marked pain.

The tendon reflexes are all increased, there is no ankle-clonus. Plantar reflex is present, no Babinski sign, all other skin reflexes active. Organic reflexes not disturbed. The expression of the eyes is dull, visual fields normal.

The patient's gait and movements in general are rather slow and deliberate. There is no incoordination and no marked loss of muscular power except that muscular strength is easily exhausted. The dynamometer registers 25 in the left and 32 in the right hand, second attempt 20 in the left and 25 in the right. Electrical reactions normal.

The treatment was the same as CASE I, with equally good results. One year later this patient reported that he is in perfect health.

CASE III.—Male, 31 years of age, teacher in public school, was admitted for treatment November 28, 1906, complaining of nervousness, incom-

petency, irritability, headache, backache, and a feeling of general exhaustion and insomnia.

History.—Family history is negative. Patient had measles and scarlet fever in childhood. He has worked hard and constantly for years, his habits are good, he is married and has two healthy children. Patient had always enjoyed excellent health until the present illness came on. Three years ago he became afflicted with insomnia, he was easily fatigued, and it was only through laborious efforts that he was able to carry on the usual duties of his occupation, and after a few weeks of growing weakness and prostration he consulted his family physician, who made the diagnosis of neurasthenia. He was obliged to give up his work and was treated for nearly two years with only temporary relief.

Physical examination.—The patient's expression is dull, he is well-nourished and of good physical development, 5 feet 11 inches in height, weight 165 pounds. Musculature well-developed and of a fairly good tone. Muscular strength good, station and gait not peculiar. The tongue is slightly coated, teeth good, digestion poor. He complains of distress a short time after meals and has gaseous and acid eructations, bowels constipated. The heart and circulation are not disturbed, pulse 72 per minute, temperature 98.6.

Blood examination.—Hemoglobin, 80 per cent; red blood corpuscles, 4,300,000; white corpuscles, 7,800.

The quantity of urine in 24 hours was 420 cc. Sp. Gr. 1022, contained neither albumen or sugar, there was a small amount of sediment, consisting of urates and uric acid, and a few squamous epithelial cells.

There are no visual disturbances, visual fields not contracted, and there is nothing peculiar about the eyes. The other special senses are not disturbed. There is no change in the cutaneous sensibility. Deep pressure at the emergence of the sciatic, first lumbar, the suprascapular, musculo-cutaneous and great occipital nerves causes marked pain. The deep reflexes are all increased, superficial reflexes all active, organic reflexes not disturbed, especially in the arms and hands. The electric reactions normal, no tremor nor muscular twitchings.

Clinical history.—The patient was given perfect rest in bed and the usual eliminative treatment was given and counter-irritation over the tender points was applied. The amount of urine increased within a few days, remaining about



1000 cc. in 24 hours. The patient slept well and all distressing symptoms abated, and he was able to return to his occupation after eight weeks' treatment. When he last reported he was in perfect health.

Case IV.—A young woman, 24 years of age, applied for treatment December 15, 1906. She had been nervous for four years, has had a great deal of headache, and backache and a constant feeling of general exhaustion. She has not amounted to anything, as she expressed it, for two years. Since about a year ago she has suffered from insomnia. She states that she is despondent at times and gave up all hope of ever being any better and treatment has been of no avail.

History.—The patient's mother is a very nervous woman but otherwise well. Her father died at the age of 60 of heart disease. The patient herself has always been well until about six years ago. At that time she had some trouble with her stomach, distress after meals, nausea and gaseous eructations. Her bowels are constipated.

Physical examination.—Facial expression is anxious, otherwise general appearance is good, well-nourished and a good color, skin is dry and slightly harsh. The tongue is slightly coated, teeth good, digestion disturbed, spleen and liver not palpable. Analysis of the stomach<sup>2</sup> contents revealed marked achlorhydria and slight retention. The circulation is not disturbed, pulse 72, temperature 97, lungs negative.

The amount of urine in 24 hours is 480 cc. Sp. Gr. 1018. Acid reaction, a small amount of sediment consisting of urates and uric acid and some epithelial cells.

Blood examinations.—Hemoglobin 80%, red corpuscles, 4,200,000, white blood corpuscles 7,800.

The eyes appear rather dull, the movements of the eyes and the eye reflexes are not disturbed nor are there any visual disturbances, the visual fields are but slightly contracted, other special senses are normal, cutaneous sensibility is not changed and there is no hyperesthesia of the skin or spine. Deep pressure at the points of exit of the great occipital, the first lumbar, the sciatic and the musculo-cutaneous causes great pain. The deep reflexes are very brisk, skin reflexes are all active, pharyngeal and corneal reflex present. The gait and movements of the extremities are

rather slow, the muscles are of good tone, muscular strength is good. The usual treatment was administered and after six weeks the patient returned home feeling much better and reported later as being well.

*Etiology and pathogenesis.*—The usual antecedents of chronic maladies, neuropathic and psychopathic heredity, play little or no part in the causation of this form of the disorder. Out of the 350 cases there were 213 in which the family history was negative, in 73 there was a history of nervousness in early life and a neuropathic heredity, in 48 cases there was a history of phthisis in the near relatives, in 16 a family history of insanity was a prominent feature. Sixty per cent of these cases were men past the age of 25 and under 45. In all but 5 cases of the entire series there was a history of disturbed digestion, and in all chronic constipation was a constant complaint. In 183 cases the stomach contents were examined and the result of the analysis was quite uniform, subacidity or inacidity and motor insufficiency was the condition, in 79 cases hyperchlorhydria was present. In all cases in this series defective elimination in general was a constant condition.

In 224 cases the quantity of urine in 24 hours was less than 500 cc. In the remaining cases it was slightly more. The Sp. Gr. was within the normal limits. There was neither sugar nor albumen, and the microscopic examination revealed no organic renal conditions.

The subjective sensory symptoms such as headache, backache, are apparently due to a localized irritation, and its severity depends upon the amount of disturbance at these points. The points of tenderness are distinctly localized over the great occipital nerve at a point where it pierces the complexus and trapezius muscles near their attachment to the cranium, and the external branch of the supraclavicular nerve at the point where it crosses the anterior border of

<sup>2</sup> Some of the analyses of the stomach contents were made in the clinical laboratory of Dr. Dock, some in the neurological laboratory and a few in the author's private laboratory

the trapezius to the outer surface of the same muscle. The first lumbar nerve at the point of exit from the vertebral canal, the great sciatic at a point immediately below the lower margin of the piriformis muscle as the nerve passes out through the great sacro-sciatic foramen, and the musculo-cutaneous at the point where it penetrates the deep fasciæ and becomes cutaneous, are also tender.

The symptoms are those of irritation and not sufficient to give evidence of any marked change in the nerve-trunk, possibly a hyperæmia in the tissues immediately surrounding the nerve-trunk in the bony canal or where it passes through tense tissues, with a passive condition in the interstitial tissue of the nerve-trunk at this point. This, however, cannot be very marked because of the absence of any functional disturbance of the nerve. Dana<sup>3</sup> says that hyperemia of the nerves is seldom recognized and authors of the more recent works on nervous diseases do not mention the subject or only allude to it casually. Leube suggests that the symptoms usually referred to as active hyperemia are due to the action of toxic agents rather than to changes in the circulation. It is, however, readily conceivable that a localized irritation might produce an increased vascularity. These facts and the absence of any nerve tenderness along the nerve-trunk will not permit the suggestion of neuritis in these cases, and the character of the pain and the course of the disorder differentiates it from what is ordinarily termed neuralgia.

It becomes evident that there is sufficient cause in the facts noted above to produce the symptom-complex which is so familiar to us all. First, the conditions of the digestion are such that abnormal fermentative processes occur, defective elimination means accumulation of refuse, irritation of those tissues which offer the least resistance and at such

points where anatomical conditions may favor circulatory and nutritive disturbances. These irritants may affect both central and peripheral nerve organs alike or the constant peripheral irritation may cause a central fatigue. The evidence is in favor of the latter from the fact that removing the peripheral irritation relieves the symptoms of central exhaustion which is not the case where the condition depends primarily upon an exhaustion of the central organ from other causes.

Over 60% of the cases were diagnosed as neurasthenia, or neurasthenia and neuritis combined, previous to admission to the neurological clinic. The symptoms appear rather indefinite and the physical conditions are out of proportion with the patient's complaints and unless we guard against the influence of the patient's general attitude we are very apt to draw wrong conclusions.

The average duration of the illness in the cases of the first division when admitted for treatment was from two to eight years. All had been treated for at least two years and many much longer. The average time of treatment after admission to the hospital was about three months, 32 improved, none recovered. In the second variety the duration of the disorder before admission was from six months to three years. All were treated not less than two months, all improved, 31 recovered. The third class, much larger in number, offers better opportunity to judge the results of treatment. The length of time these patients had been sufferers before admission for treatment was from one to six years, all had been treated for a long period before being admitted to the University Hospital. One hundred and eighty-three cases belonging to this division were treated. The period of treatment was from six weeks to three months, all made a good recovery.

<sup>3</sup> *Diseases of the Nervous System*, 1906.



*Treatment.*—In regarding these conditions as rather general without a known localized pathological basis, the tendency in the treatment is that general measures are used, especially the various forms of electricity have been advocated by many who have given attention to the treatment of nervous disorders. These measures are purely empiric and, in some forms of the disorder are distinctly hurtful. The author is convinced that the condition has been prolonged in some of these cases by using these measures and regards its use contra-indicated in the class of cases just described. We should give our attention first to special pathological conditions such as disturbed digestion and defective elimination as well as the localized peripheral nerve-irritation, and above all, the most important part of the treatment is rest; this should be enforced for at least four weeks, and after this moderate exercise with a great deal of rest for the same period, or a little longer, in the meantime such drugs as are required to relieve the existing abnormal conditions may be given.

To what extent autotoxemia<sup>4</sup> is responsible for the causation of this disorder is as yet far from being definite, but we may assume that abnormal fermentative processes in the stomach and accumulation and decomposition in the bowels is a menace to the nutrition of

the organism in general, and we cannot overestimate the value of thorough elimination, it is an imperative preliminary in the treatment of this disorder. As to hydrotherapy, much benefit may be derived from a daily cold shower followed by a brisk rubbing.

While it was not my intention to bring out new facts in this form of neurosis, the value of the above classification is at once apparent when we consider the results of local treatment directed towards the relief of peripheral irritation which has much to do with the disturbance of the nervous system in general. Other advantages and most important to the patient are that we may assure him of a hopeful prognosis and a complete recovery.

Whether these cases should be all classed under the one general head of neurasthenia is of secondary importance as long as we do not consider them clinically and pathologically as a unit. It is of more importance that we consider them individually according to the symptoms and their pathological basis. It is, however, proper to assume that the symptom-complex of the cases which the author has placed in the first division is a direct expression of a particular state of neuropathy, it is the primary condition and neither disturbance of digestion, defective elimination nor auto-intoxication have the general importance that some authors have endeavored to ascribe to all cases of neurasthenia.

<sup>4</sup> "Toxic States of the Blood," by the author, *Amer. Journal of Med. Science*, Nov., 1900.

#### Discussion.

**Dr. Inglis**, Detroit. The paper is a very valuable contribution. One can find no fault with the classification given. We have the two distinct classes in which the indications for treatment are clear, and the third class of neurasthenia associated with pain. Tender points are readily found which are not due to inflammation or neuritis properly speaking. The author recognizes that the main factor in the treatment of these cases is rest. When there is pain it wears on the

nervous system more than we realize. Many of these patients treated simply as neurasthenics, would not recover unless there is relief of pain. We should in every way try to encourage the patient to forget the pain and occupy the mind with something else. Autointoxication should be emphasized as a very important etiological factor.

**Dr. Solis**, Ann Arbor. We should insist upon distinguishing between neuritis and neurasthenia



associated with pain. Frequently this latter condition is due to autointoxication of recent origin. If recognized, it can often be quickly relieved. Static electricity should be used in the acute cases. It is one of the strongest stimulants to cell activity. With this aid it is not necessary to resort to rest.

**Dr. Flintermann**, Detroit, said that the classification was a little new to him. The cases mentioned do not belong to neurasthenia, although tenderness on pressure does not exclude neurasthenia. In the cases cited there is no mention of phobias which are pathognomic of that

disease. Rest is very important in the treatment. Electricity has its uses. It is very unfortunate that the state has not provided for the care of these cases. At present there is no place whither they can be sent.

**Dr. Klingmann** remarked, in concluding, that even after the first class of cases which he had described had been brought under normal conditions they did not improve in every instance. In regard to electricity, he thought that, while it might relieve the peripheral irritation, it was fatiguing to the central nervous system, and for that reason he preferred other measures.

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## REMARKS ON THE DIAGNOSIS OF TWISTED PEDICLE OF PELVIC TUMORS\*

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**HENRY F. LEWIS, M. D.**

Professor of Gynecology in the Chicago Polyclinic; Attending Surgeon to Cook County Hospital.

Chicago

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Torsion of the pedicle of any kind of pelvic tumor may occur provided that the conditions are present, and the exciting cause. Those most often subjected to torsion of their pedicles are ovarian tumors of the solid variety, uni-locular and multi-locular cysts and, relatively most common of all, dermoid cysts. The uterus may be involved in a twisted pedicle of a subserous fibroid, and itself may be twisted upon the pedicle composed of the round and broad ligaments and the upper vagina, when enlarged from a mural fibroid or other tumor of its substance. It may be concerned in the torsion of the pedicle of some other pelvic tumor, especially of the ovary or the parovarium. The parovarian cyst, although it develops within the folds of

the broad ligament, may enlarge to such an extent that it acquires quite a long pedicle, torsion of which is not infrequently reported. The Fallopian tube is not uncommonly overtaken by this accident. The most common kind of tubal tumor to become thus affected is the hydrosalpinx. This is usually reported as a hematosalpinx, because the contents of the cystic tube are usually bloody as a result of the vascular disturbance incident to the torsion. Pyosalpinx, since it is usually complicated by numerous and dense adhesions, is seldom mobile enough to allow a twist of its pedicle. The tube which has become the gestation sac of an ectopic pregnancy has a number of times been observed with a twisted pedicle. The otherwise normal tube has not escaped torsion of the pedicle formed by the broad ligament and

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\*Read before the Kalamazoo Academy of Medicine, June 18, 1907.

its own uterine extremity.

Rokitansky is the first to mention torsion of ovarian pedicle, in an article published in 1841. Fourteen years later he gave an analysis of 13 cases observed by him. Ribbentrop, in 1865, first gave a careful description of the clinical aspect. Wiltshire, in 1868, performed the first successful operation for the relief of the trouble. Little is published upon the subject from this time until the eighties. Since then there is quite a literature of the subject because of the more frequent diagnosis and of the more frequent operations upon all pelvic diseases. Torsion of the pedicle of tubal tumors was first called to our attention in 1890 by Bland Sutton.

The conditions permitting and favoring the rotation of a pelvic tumor upon its pedicle so as to twist the latter are as follows. Moderate size of the tumor favors the torsion of its pedicle. A diameter of some four inches is the most common, but torsion may occur with much smaller tumors, even of the normal ovary or tube. If the tumor is so large that it occupies a large part of the abdomen, or indeed quite fills it, it is not easily enough moved to allow a twist of the pedicle. Then again, a large tumor has usually acquired so many adhesions that rotation is prevented by them. In Storer's series of 248 cases of torsion of the pedicle of ovarian tumors, 66 per cent weighed less than ten pounds.

The tumor must be mobile upon its pedicle. For that it must not be packed down into the floor of the pelvis but, in the beginning at least, must lie free rather high in that cavity. Adhesions of the surface of the tumor to the parietes or to other viscera in an obvious manner hinder or absolutely prevent rotation.

As another condition of mobility must be mentioned laxity of the abdominal walls. Rigid parietes tend to hold snugly in their places the viscera and

any tumors which may be present. Young nulliparae rarely have torsion of the pedicle, while it is most common in women who have borne many children within a rather short period. Women formerly corpulent, but who have lost flesh, have similar lax abdominal walls. Tumors which are more likely to have their pedicles twisted are those showing irregularities of surface or irregular distribution of weight within their substances. For that reason dermoids, multilocular cysts and solid tumors are more likely to become rotated than others. Eighty-three per cent of Storer's cases were of this class. The equilibrium is disturbed by the irregularity in the weight and the irregularities of the surface offer many points for the exercise of the twisting forces. The period just after normal labor is one in which conditions are favorable for torsion of any pedunculated tumors which may lie within the pelvis. Thus Meyer reports the case of a young woman who, shortly after her second labor, was seized with symptoms pointing to hemorrhage, ileus or puerperal sepsis. These were weak and rapid pulse, obstipation, high fever and the presence of a tender mass in the right hypochondrium. A tumor, the size of a child's head, occupying the situation of the right ovary was found, on operation, to have become twisted in its pedicle.

The longer the pedicle the more likely is the tumor to rotate, but it requires more rotations to produce strangulation and consequent symptoms in cases where the pedicle is long than when it is short. Two or three turns with a pedicle of three or four inches in length will often not produce much interference with the circulation within the tumor, while half a turn with a short, thick pedicle may cause complete blood stasis. Most of the acute cases are those where the pedicle was relatively short and thick and therefore, when twisted, was completely strangulated. Many of the cases show-



ing intermittent symptoms are those where the pedicle is long and relatively thin so that the first rotation will merely slightly interfere with the blood circulation while there may be several subsequent crises due to further twists.

Numerous cases are reported where the tubal tumor or the normal tube itself becomes rotated and the pedicle becomes twisted without any involvement of the ovary. Baldwin reports a case of gangrene of an hydrosalpinx due to torsion of the pedicle where he removed the offending tumor without disturbing the ovary of that side.

Besides the favoring conditions mentioned already there must be certain exciting casual factors which produce the culmination of the torsion. Much theory has been indulged in in this regard, but there is little of real value so far determined. Storer enumerates possible causes and tabulates them. In the tumor itself; disturbance of equilibrium by irregular growth. In the uterus; pregnancy, the exertions of labor, the condition of void after labor whereby the tumor falls into the space left by the diminished uterus. In the bladder; alternate emptying and filling of the organ aided by movements of the rectum. In the rectum; descent of feces, violent acts of defecation, rolling of the tumor into the space left by the recently voided bowel. Intestinal peristalsis, in some unexplained way. By influence of another tumor in disturbing equilibrium or in pushing the rotating tumor around as the body moves. Certain unusual movements of the body as a whole, or certain constrained movements or positions of the body or parts thereof may sometimes act to rotate a tumor so that its pedicle will twist. Thus straining at stool or in vomiting, a sudden long breath, running, stooping, making a misstep or sitting down hard may aid the abnormal motions of the tumor. So also may sudden change of position while in bed or twists

of the body in rising from bed. Trauma; a fall or jolt, pressure of some object against the belly, a fall, enema, bimanual gynecological examination, tapping of a cyst.

The results to the tumor and to the patient herself depend upon how completely and how quickly the blood supply is impaired. A sudden complete twist will cut off at once both veins and arteries, so that the tumor will at once die and become a necrotic body within the peritoneal cavity. It will soon become infected with microbes from the general circulation or from the neighboring loops of intestines. If the patient does not die of shock without delay, she will probably succumb to a quick peritonitis unless the offending dead matter is removed by operation. A less complete shutting off of the blood vessels is more common. The twist is more gradual and does not immediately shut off nutrition. The veins are more soft and easily compressible than the arteries. Therefore the first result is an edema of the tumor walls and of the contents of the sac. A more or less rapid augmentation of the size of the tumor is consequent upon the edema and upon the hemorrhage into the walls and lumen of the cyst. As the veins become occluded, the pressure within the capillaries of the strangulated tumor becomes high and their walls rupture, allowing free blood to extravasate into the tissues of the tumor and into the cavity, if the tumor is cystic. The surface of the tumor becomes roughened and adhesions take place between it and the neighboring parts. These are rarely very firm, and do not interfere with the subsequent further torsion which often supervenes.

While the actual exciting causes are not well defined yet the formation of the torsion follows in the main certain definite rules. Küstner elaborated a law concerning the direction of rotation which is generally observed. Cysts or tumors of the right side rotate towards the left,



and those of the left side rotate towards the right. In other words Küstner states that the motion is comparable to supination of the hand on the side in question. He considers a right spiral like that of a corkscrew and a left one the reverse. I think most of us would speak of a right twist as one in agreement with the course of the hands of a clock and a left one the reverse. In that sense the usual twist of a right-sided tumor would be towards the right, that is, as if the right hand was moved into supination. However one regards the terms right and left as applied to rotation of tumors, the fact remains that Küstner's law is applicable to the vast majority of torsions of the pedicles of ovarian tumors, although it does not so frequently apply to torsion of the pedicle of tubal or uterine tumors.

Clinically the points of diagnosis are fairly typical. The previous existence of a tumor is a most important and often necessary diagnostic point. Often there is a history of exertion or some slight accident like a fall or a blow. There is a sudden sharp pain usually on the side of the abdomen in which the tumor takes origin. Instances are recorded however, two by Delore, where the pain and the bulk of the tumor were on one side while the twisted pedicle took origin from the opposite side. The pain often radiates downwards from the tumor along the inside of the thigh of the affected side, sometimes into the lumbar region. The tumor rapidly increases in size and becomes very tender on pressure. There is usually more or less severe and persistent vomiting, often as bad as that accompanying obstruction of the bowels. In most cases there are signs of shock. Later come signs of peritonitis. Moulis and Reboul describe two pathognomonic signs, namely, a systolic murmur at the tender point and pulsation movement of the tumor synchronous with the beat of the heart. Kober reports a case from Pfannenstiel's clinic where hemoglobin-

uria was a prominent symptom.

In considering the differential diagnosis the first disease which comes to mind is appendicitis, with which torsion of the pedicle of a pelvic tumor is likely to become confounded. The sudden pain, the shock, the rigidity of the rectus muscle of the affected side, the vomiting, the signs of peritonitis and the local tenderness are sometimes very confusing. Vaginal examination will in most cases clear up the doubt. The partial twists which are characterized by intermittent symptoms, give a clinical picture similar to that of the intermittent paroxysms of appendicitis. Pinatelle reports a case of a young woman who had complained one year of recurrent attacks of pain on the right side of the lower abdomen with vomiting followed by meteorism. The diagnosis was appendicitis, but operation showed a small ovarian cyst of the right side with torsion of the pedicle ( $180^{\circ}$ ) and with adhesions to the appendix. Numerous cases are recorded where appendicitis and torsion of the pedicle of a pelvic tumor co-existed.

Tubal pregnancy may give some uncertainty in diagnosis. The absence of any cessation of the menses, the less marked signs of hemorrhage and the less emphatic signs of shock in torsion, as well as finding an increasing tumor instead of a diminishing one will aid in the distinction. Ruptured cyst will usually lack the degree of shock incident to sudden torsion. Of course the history will tell a contrary story in that, with torsion, the tumor quickly becomes larger while, with ruptured cyst, it becomes immediately much smaller or disappears. If not infected there will be no subsequent signs of peritonitis as in torsion. Probably nearly all the so-called inflamed cysts are really cysts whose pedicles have twisted. Any cyst may become infected and suppurate, especially a dermoid. The symptoms of such

a trouble would be slow in developing but would resemble those of rotation with gradual strangulation. Indeed the commonest reason for suppuration in such cysts is probably torsion itself.

Movable kidney may itself rotate so as to twist its pedicle, especially enough to kink the ureter and cause acute hydronephrosis, with symptoms often comparable to those of torsion of the pedicle of a cyst. If the dislocated kidney lay very low it might even be mistaken for a cyst of pelvic origin. Volvulus, which is of course a kind of torsion of pedicle, when lying low, may give symptoms and even physical signs similar to those of torsion of a pelvic tumor.

When we come to distinguish, in a case of torsion of the pedicle, between ovarian, parovarian, tubal or uterine torsion we approach a refinement of diagnosis often impossible and seldom practically important. Ovarian tumor is by far the most common to undergo this accident. In the absence of previous knowledge of the kind of tumor the distinction between ovarian, tubal and parovarian torsion is generally merely presumptive. In Storer's series of 62 cases of torsion of the pedicle of a tubal tumor, the diagnosis of torsion was made before operation in 37, but in only one was it claimed that the tubal character of the tumor was recognized.

As to prognosis it may be well to refer to Aronson's figures. Of 26 cases not operated upon, there was a mortality of 81%; of 36 cases operated upon, there was a mortality of only 17%.

The specimen which is before you has been reduced about half by immersion in the fixing solutions. It represents a dermoid of the right ovary to which the tube is attached containing a creamy and bloody fluid at the time of removal, sebaceous matter and considerable blond hair. There was probably an infection of this dermoid before or after the torsion and the creamy material seems to be pus. The walls of the cyst are from one quarter to half an inch in thickness and are filled with extravasated blood, which gives the dark blue color to the specimen. This tumor I removed from a young married woman who had borne two children. The patient called Dr. C. H. Francis on account of lumbar pains of a severe neuralgic character. Under a small dose of morphine the pains subsided during the night. The second day she complained of severe attacks of pain, especially in the right side of the lower abdomen. A tumor had some time previously been observed in the pelvis and seemed to be about as large as a duck egg. On examination at this time it was found to be as large as a large orange and well packed down into the cul de sac of Douglas. Operation by the median incision was performed after es-saying a diagnosis of a twisted pedicle of an ovarian tumor. A large blue tumor of cystic character was found behind the uterus well down upon the pelvic floor. The pedicle was twisted according to Küstner's law by three rotations. The circulation seemed entirely cut off. Removal was easy and the patient made a rapid recovery.

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## PRACTICAL SUGGESTIONS FOR THE LIMITATION OF PUERPERAL INFECTION\*

JAMES E. DAVIS, M. D.

Detroit

*Statistics.* The best available statistics concerning puerperal infection are said to present a mortality less sombre than the actual facts. Williams mentions the investigations of Boxall and Byers, who found that outside of the lying-in hospitals this preventable scourge claims as many and perhaps more victims than it did twenty or even forty years ago.

The Berlin Society of Obstetrics and Gynecology arrived at the conclusion that from ten to fifteen per cent of the deaths occurring in women during the period of sexual activity were due to "child bed fever," and that this disease destroyed nearly as many lives as small-pox and cholera. Max Boehr, in his famous statistics, estimates that one-thirtieth of all married women in Prussia die in childbed.

Ingerslew states that at the present time in Denmark, with the single exception of tuberculosis, puerperal infection is the most frequent cause of death in women between the ages of twenty and fifty years.

Bacon, in an article based upon uncertain records obtained from the health department of Chicago, gives a mortality for puerperal sepsis of 7.3 per cent of all women dying between the ages of twenty and fifty years.

Williams says one cannot be guided altogether by the mortality statistics, inasmuch as the largest proportion of

puerperal infection cases do not end fatally, but present later as difficult gynecological problems.

*Organisms.* The more important bacteria present in puerperal infections are the streptococcus, bacillus coli communis, gonococcus, and bacillus aerogenes capsulatus.

These pathologic organisms are fortunately only found occasionally in the vagina and uterus prior to delivery, and are therefore necessarily acquired.

The material found in the vagina is not a true secretion, as it is composed of secretions from the cervix and uterus, exudates containing exfoliated epithelium and leucocytes. The reaction of this fluid during pregnancy is markedly acid—incidentally this may be said to prohibit coition during the latter months of pregnancy.

The body of the uterus is normally free from microorganisms. Stroganoff found the bacteria of the vagina extending up to the mucous plug of the cervix, but not penetrating it, and experimentally proved the mucus an unfavorable environment for bacteria. A true infection may result from penetration of the uterus by any of the pathogenic bacteria.

*Classification of Infections.* Spiegelberger has given a classification of puerperal infection which serves excellently to emphasize the principal points to which inquiry should be directed.

1. Inflammation of the genital mucous membrane.

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2. Inflammation of the uterine parenchyma.
3. Inflammation of the peritoneum.
4. Phlebitis uterina.
5. Pure septicaemia.

It is easily true that the inflammations of the first class, which are confined to the vagina-*'endocolpitis'*—are more frequently present than those of the uterus-*'endometritis'*.

The majority of infections by way of the vaginal mucous membrane occur through lacerations and bruises. To prevent these ports of entry or areas for the lodgement and growth of pathogenic bacteria is one of the chief duties of the accoucheur.

Whether conservative or active measures are to be followed in each given case is a question of careful and experienced judgment. Too often the mere delivery of the child is the only consideration. An hour is saved at the time of delivery and a dozen hours are used later in caring for artificially what nature would have done safely in that one hour.

Different workers have formulated rules as to when aid should be given in the second stage of labor. Croom would allow no multipara to be in the second stage more than three hours and no primipara longer than four hours.

The rule of allowing no case, when in the second stage, to labor longer when no progress has been made for one hour is applicable, like Croom's and all other rules, only in a general way. It may be said that the average practitioner does not wait long enough, while the midwife and the persistent opponents of instruments wait too long. Incidentally, I might say that instruments in the hands of most men are potent factors in the causation of tears. Yet, delayed labor is a cause of puerperal fever, because the tissues become bruised and therefore incapable of normal resistance. It is better to have insignificant tears which can be accurately approximated and a good

cement repair effected in 24 to 48 hours, than a large devitalized area with probable sloughing and unhindered invasion during the necessary decubitus.

Of all the single factors in the prevention of puerperal infection, "providing that ordinary cleanliness has obtained," the accurate approximation of all lacerations with absorbable suture material is to my mind most important.

It is not an easy task to properly examine and make satisfactory repair of all tears immediately after delivery unless the conditions are made convenient.

First of all, delivery should be made upon a table, with a convenient good light. All parts must be carefully palpated and, if possible, made convenient for ocular inspection. The sulci should be most carefully examined.

In my experience repairs made with plain number 3 catgut give best results. When any but animal membrane is used for sutures, there will be considerable drainage around the sutures, causing frequent infection of the approximated walls.

The hands of the obstetrician and the portio-vaginalis should receive the same preparation, and there are no agents so effective as good liquid soap and hot sterile water. It is a good plan to use at least five minutes for each, and much longer if the parts are dirty. A thick lather should be repeatedly made by vigorous rubbing with gauze. The utmost care should be given to most thoroughly cleansing the vulvar folds, clitoris, and area of the vestibular glands. The ducts of these glands frequently harbor gonococci. On account of unfortunate habits there will frequently be found a variety of pathogenic bacteria about the clitoris, the finger nails having served as the carrier of the organisms.

After the free use of water and soap, the hands and genitalia should be frequently bathed with a 1 or 2 per cent solution of any one of the cresylic acid



preparations, like cresylone, lysol, etc. A lasin containing this disinfectant solution should be near at hand so that convenient and frequent applications may be made.

It is now the consensus of opinion that antepartum and postpartum douches increase the liability to infection. A thorough preparation of the portio-vaginalis is the best factor for the prevention of infection.

It is with the genitalia of some patients as with the hands of some practitioners—the personal equation is almost unsurmountable. A patient whose habits are uncleanly should receive specific directions for self preparation, and failure of compliance therewith should place a heavy responsibility upon the patient, and knowledge of this should not be withheld from her. The accoucheur is not always to blame for infections, though custom has decreed it thus, and the sensitive conscience of the obstetrician has appropriated the opprobrium. Apropos of this is the following case: A. M., during an absence of his wife from home, acquired gonorrhea. In due time he infected his wife, who was eight months pregnant. In a brief time their little girl, two years of age, and her cousin, a little girl of three years, who was her playmate and lived in the same house, became infected. On May 11th I attended the mother in a normal confinement. In four days the child developed ophthalmia in one eye, notwithstanding the free use of a 25 per cent solution of argyrol. Simultaneous with the ophthalmia a specific vaginal discharge began in the infant. The urethra of the mother has been actively reinfected and urination after the third day from confinement is difficult and painful. The case is an extreme example which will illustrate where responsibility should rest.

The routine use of gloves is one of the most important considerations in preventing infection. In all cases where gloves are not used the history of the

hands should be intimately known. Any man doing aseptic surgery and obstetrical work of this class should be at all times face to face with his personal responsibility. The pathogenic bacteria found in puerperal infection should be frequently brought in mental review. The possible and natural culture media, with the mode of transmission of each, should be "finger end" knowledge with all who do midwifery.

It is well to bear in mind always that the habitat of the bacillus coli communis, by virtue of its proximity to the birth canal, is an easy source of infection. The rectum and sigmoid should be emptied about three hours before completion of the second stage of labor.

The average careful practitioner is perhaps most apprehensive of fatalities from gonococcic infection. The well-known latency of this disease, with its widespread prevalence, make for the necessity of great watchfulness. The most rigid attempt should be made to disinfect the areas of the vestibular glands. The repair of lacerations should be promptly and thoroughly done; drainage should be aided by elevation of the head of the bed.

The whole question of limiting puerperal infection is not by any means confined to the patient and physician.

There is no nursing of either the professional or non-professional type that so inadequately copes with serious responsibilities as does that of obstetrics.

The obstetrical nurse is necessarily a third factor in the responsibility of infection, and under the present prevailing conditions the best we can do is to insist upon her following such directions as are within her capabilities.

In conclusion, the subject may be summarized in its three parts, which are: division of responsibility; knowledge of the requirements of prevention; and persistent vigilance in resistance to the pathogenic bacteria of its causation.



## THE DIAGNOSTIC IMPORTANCE OF BLOOD IN THE STOOLS\*

LOUIS J. HIRSCHMAN, M. D.

Detroit

The idea of the author in bringing before the section in general medicine a paper with the above title, is to emphasize the extreme importance, from a diagnostic point of view, of local rectal hemorrhage. It is the general practitioner, not the specialist, who is first consulted by the patient, and to whom I wish to address these few remarks.

There is probably no one symptom which causes the patient to seek the aid of the proctologist more often than that of the loss of blood with the stool, and yet a much larger number of patients, who suffer the loss of more or less blood with each defecation, make their own diagnosis of "hemorrhoids" and treat themselves with advertised proprietary remedies and only seek the advice of their family physician when they find that they are "getting no better quite fast."

In my own experience in this line of work, I have had so many patients sent to me with a diagnosis of "some rectal trouble, probably piles," who upon examination have been found to be suffering from serious and sometimes incurable conditions, that I have felt that it would not be amiss to recall to this society at this time, some of the other conditions, far more grave, whose first danger signal consists of the loss of blood with the stool.

It is perfectly astonishing to one who has given the study of diseases of the lower digestive tract some special atten-

tion, how many physicians take it for granted that when a patient comes complaining of bleeding with the passage, with or without pain, that that patient is suffering from hemorrhoids. Usually there is no attempt at a local examination at all, or a simple digital examination has been all that has been attempted. I wish to state here and now, that no physician has commenced to do his duty to his patient, if that patient gives the history of the loss of blood, even in minute quantities; if he does not make a thorough and complete proctoscopic examination and determine the source of the blood. If the physician is too busy, or if such work is distasteful, then he should call in the aid of the proctologist; and I wish here to parenthesize that since the proctologist has come into existence and has divorced the study and special treatment of the diseases of the anus, rectum, and colon, from general surgery and medicine, the early diagnosis of commencing malignant disease, and more scientific and careful treatment of diseased conditions of these portions of the human economy in general, have been made possible, and today the leading colleges and hospitals have made provision for departments of proctology.

I will limit myself in this paper to the discussion of those diseases of the lower bowel, which give warning of their onset by the appearance of hemorrhage, which is usually detected first by the patient. I do not intend to discuss such diseases as general tuberculosis, syphilis, malaria, typhoid fever, gastric and duodenal ulcerations, the various intoxications,

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metallic poisoning, the high-up neoplasms, or other conditions, which on account of the higher origin of the hemorrhage, gives rise in most instances to dark colored almost black fluid and clots. The blood in these cases is intimately mixed with the fecal mass, which may be solid, or as is more often the case, liquid. The above named conditions, however, have been diagnosed long before any appearance of blood is manifest with the stools. Neither will I attempt to discuss those diseases which give rise to occult blood in stool, for the reasons given above. However, there are so many conditions which give rise to fresh blood, or hemorrhage of the bright red type, which are not diagnosed, without proctoscopy, that I will limit myself to the discussion of the local diseases of the rectum which may cause such hemorrhage.

As I have said above, hemorrhage is one of the most frequent warning signals in rectal disease and often the first indication. It is more common in adults than in children. The bleeding may be very profuse, or very slight, and may occur during defecation or during intervals, or both. The blood may be discharged either liquid or clotted and may be mixed with mucus, pus, feces, or other debris. Fresh blood discharged per rectum is usually from a local hemorrhage but may have descended from the colon or sigmoid. The darker in color the blood, the higher in the bowel its source. Rectal hemorrhage may be caused:—(1) By local disease; (2) traumatism; or (3) following operation. The cause of the last is so evident that it will not be considered, and trauma will simply be mentioned. The local diseases of the rectum which may cause hemorrhage are:—(1) Internal hemorrhoids. (2) Prolapse. (3) Fissure. (4) Ulceration. (5) Stricture. (6) Malignant Disease. (7) Proctitis. (8) Fecal impaction. (9) Polypus. (10) Villous

growths. (11) Chancroids and chancres. (12) Condylomata. Other diseases causing local rectal hemorrhage are:—(1) Amoebic dysentery. (2) Intussusception. (3) Embolism of mesenteric artery. (4) Congestion of the portal vein. (5) Scorbatus.

The bleeding from internal hemorrhoids is slight, unless the wall of a large vein is ulcerated through, or ruptured. It is usually venous and is brought about by straining during stool. It may amount to a few drops and only be detected by the patient on the toilet paper after the movements, or it may be more profuse and continue for a long time. Patients have become almost exsanguinated from loss of blood from internal hemorrhoids. In some instances the blood has the appearance as coming from an arterial source and I have seen it spurt out in jets during anoscopic examination for internal hemorrhoids.

Prolapse may or may not be accompanied by hemorrhage; it is only in those cases where the prolapse has remained outside for some time, or has to be frequently replaced, that bleeding occurs. When bleeding is encountered in these cases the patient will usually tell you that he is suffering from hemorrhoids and it behooves the medical man to examine for himself. It is in cases of fissure, however, that physicians are often led astray, in fact I have had a number of physicians as patients during the past year, who have suffered from fissure, and some of them aggravated cases, where they had made their own diagnosis of bleeding internal hemorrhoids. The small superficial fissures bleed but little and sometimes the only indication of their presence, outside of the symptom of pain, is a streak of blood on the side of the stool, or a drop or two following its passage. When the fissure is deeper or more extensive the bleeding following the passage of the stool is accompanied by great pain, of



excruciating cutting character, accompanied by tenesmus and spasmodic contraction of the sphincter which lasts for some time. The symptom of the blood-streaked stool is almost pathognomonic of ulceration of the rectum, anus and lower colon, and is perhaps, next to internal hemorrhoids, the most frequent source of hemorrhage and is almost invariably accompanied by diarrhoea. In fact the writer has repeatedly discovered the source of an intractable diarrhoea, upon proctoscopic examination, to be an ulceration. Various urinary reflexes, as well as many cases of pruritus ani and sharp pains along the sciatic nerves, have been relieved by the cure of rectal or sigmoidal ulcerations. Sometimes the appearance of the blood clot will give a clue to the diagnosis of ulceration. The clot which is smooth on one side and roughened on the other is usually from the site of such an ulceration. The amount of hemorrhage depends upon the extent of the ulceration and the size of the vessel involved, yet it is astonishing how many cases of very extensive ulceration can go on with very small loss of blood. In cases of rapidly spreading syphilitic malignant or tuberculous ulceration, the hemorrhage is often so profuse as to be positively dangerous.

One who does not meet with many cases which require ocular inspection of the rectum will be astonished at the number of cases of ulceration of some form or other, and very frequently the extent to which such ulcerations can go on, without the patient knowing of their existence, except from hemorrhage. One other important point to remember with rectal disease, is the fact that many diseased conditions of the rectum are not accompanied by pain until they are far advanced.

Stricture of the rectum is much more frequent than is supposed. It has been a revelation to me how many patients suffer with stricture without their knowl-

edge. Only a few weeks ago a woman was brought to me by her physician for operation for bleeding internal hemorrhoids, and when I went to make a digital examination I was unable to do so on account of a stricture so far advanced that I was unable to insert my finger. This woman had been taking cathartics for a long time, had always bled at stool, and only came for relief because her passages were getting painful. There was no history of any constitutional trouble and it was evidently a case of simple cicatricial stricture, following extensive circular ulceration of the bowel, of which she was unaware. I not infrequently see cases of cicatricial stricture follow clamp and cautery operations for hemorrhoids, and Whitehead operations. It is on account of the frequency with which these strictures are met, that the clamp and cautery and Whitehead operations are not employed by the author.

The blood from stricture is mixed more or less with pus, and mucus. If the patient has infrequent bowel movements, a coffee ground appearance is sometimes met with in these conditions.

The most important condition, however, which makes itself manifest first by rectal hemorrhage, is malignant disease; and it is in this condition, above all others, where an early complete ocular inspection will save lives. It is the same with malignant disease, in this part of the body, as in all others. If the surgeon can get them early enough he can relieve them with some hope of permanent cure, and inasmuch as rectal cancer is low, the early operation is productive of much good. Some of the early symptoms of commencing cancer of the lower bowel are:—tenesmus, constipation alternating with diarrhoea, flatulence with colicky pains and slight hemorrhage. The nearer to the anus, the cancer, the earlier the hemorrhage, on account of the damage by the feces. Loss in general health is not an early



sign of rectal cancer. The Indican reaction is usually present in the urine, in cancer; while it is absent in ordinary diarrhoea; accompanied by colic, etc. Persistent diarrhoea accompanied by even a slight hemorrhage is always suggestive in cases which seem to be simple colitis, and should call for an examination with the proctoscope and sigmoidoscope. When one considers that fifty per cent of all cancers occur in the gastrointestinal tract and when one realizes that sixteen per cent of all cancers of the digestive tract occur in the rectum or sigmoid, one realizes the importance of examining every case which presents the history of rectal hemorrhage, however slight, and no matter the age of the patient. Cases of cancer well authenticated have been found in patients as young as fifteen.

Boas found in five hundred cases of cancer of the digestive tract, eighty-three rectal cancers; showing how much more frequent cancer is prone to locate in this part of the body than is generally supposed. In my own practice I have frequently had patients brought to me in the forties with a history of rectal hemorrhage, impeded bowel movements and digestive disturbances, where examination with the proctoscope and sigmoidoscope has shown almost complete occlusion of the lumen of the bowel and too far gone to extirpate. The best that could be done was to do a colostomy and give them a temporarily longer lease of life and leave the growth untouched.

Polypi rarely bleed, and only when they are large and protruded. Digital examination is usually sufficient to make a diagnosis. Villous growths are rare, but bleed freely and especially during defecation. There is considerable hyperemia of the mucous membrane of the colon in the first stage of colitis or dysentery. I may say in passing that streaks of blood in the stool are usually a warning of impending hemorrhage in

typhoid fever.

When proctitis is far advanced the mucosa is covered with pin-point ulcers or polypoid excrescences, which become detached causing more or less hemorrhage.

In fecal impaction, when the mass has been retained for a considerable time, pressure necrosis may be caused; or scratching, tearing or scraping of the mucous membrane in the passage of the mass may cause hemorrhage. Hemorrhage, however, in these conditions usually follows the expulsion of the scybalous mass, therefore is not of great importance in diagnosing these conditions.

Chancres and chancroids of the anal region bleed slightly, and it is well to be on the lookout for other symptoms of syphilis, when the appearance of blood calls your attention to the hard sore situated in the region of the anus.

Condylomata, surrounding the anus, are usually injured by the fecal passage, causing a slight bleeding, but the hemorrhage is apt to be persistent. In children often bleeding will be the first intimation that one has, that a foreign body has been swallowed. It has always been an astonishing thing to me that pins, buttons, coins and other articles can travel through the entire intestinal tract and reach the rectum without having done some damage, as is usually the case, and then cause pain and hemorrhage only when they come in contact with the outlet. In insane patients one often finds foreign bodies, which have been thrust into the anus, to be the cause of rectal hemorrhage. I have repeatedly removed small pieces of bone, pins and even bits of china which have been swallowed and which were causing hemorrhage and pain.

It will be seen through what has been rather imperfectly brought out that there are many other conditions which give rise to the appearance of blood with the stool, other than hemorrhoids, and it be-

hooves the practitioner of medicine to be on his guard and to examine carefully and thoroughly the anus, rectum and sigmoid of their patients who present the history of even very slight hemorrhage.

If I have convinced one of my auditors of the importance of hemorrhage, not

accompanied by pain or other symptoms, as the early warning signal in commencing cancer, and have been instrumental in causing a practitioner to examine one case in which commencing cancer is discovered in time to remove, I feel that this feeble effort has not been in vain.

604 Washington Arcade.

#### Discussion.

**Dr. J. B. Herrick**, Chicago, said that he was very much interested in the doctor's instructive paper. He realized that it was very easy to neglect to make a thorough rectal examination. It has been said that the consultant was simply called to make the rectal examination. He wished to impress the importance of this examination in cases of severe anemia. Cases are not at all rare which show the picture of primary anemia which are caused by a local rectal trouble.

**Dr. Dickinson**, Saginaw: If we will all remember that rectal bleeding does not always come from internal hemorrhoids, we will carry

away a very practical point.

**Dr. Flintermann**, Detroit, said we should never neglect to examine the rectum. Frequently he has seen cases apparently very obscure, where the rectal examination explained the cause of the trouble. This was especially true in severe anemia.

**Dr. Hirschman**, Detroit, said that he would be satisfied if he had made his hearers feel that symptoms of bleeding from the rectum were not always due to internal hemorrhoids. This symptom should always be investigated. A thorough rectal examination made and lives will be saved

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## IS THE OBSTETRICIAN PROPERLY CARING FOR AND BEING CARED FOR, IN OBSTETRIC PRACTICE?\*

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A. N. COLLINS, M. D.,  
Detroit

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The importance of great care in the delivery of primiparae I think none of several years' observation will question. My gynecological friends will bear me out in the assertion that a large proportion of their cases in gynecological work come to them with a history of difficulties dating from their first labor. From the very nature of this tremendous ordeal in a woman's life we cannot hope to more than modify this lamentable history. In no branch of medical effort are

consequences more far-reaching and influential in making for the weal or woe of a family intrusted to the medical man than in obstetric practice. If by more care, more patience, more gentleness, or more knowledge of whatever kind, we can render this ordeal safer and less productive of deleterious effects, our time is well spent in reviewing this old and commonplace subject.

In the whole State of Michigan nearly all of this work is done, as must of necessity be, by the general practitioner—the man who does the real hard work

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of the profession. In our larger cities a few men and women give this subject special attention, usually and very properly in connection with gynecology. We need more men in every community who give more attention to this branch of medicine. I feel that I do not go far wrong in saying that in obstetrics, development and better methods have not kept pace with other subjects—certainly not with surgery. The subject is, as it were, crystallized—wrong methods are repeated without sufficient attention to improvements. There are reasons for this which I will mention later.

In this short paper I will confine myself to relatively uncomplicated cases, as a very large proportion of cases are uncomplicated, by the infrequent serious conditions, such as contracted pelvis, hydrocephalus, etc.

We of this generation have a responsibility in obstetric practice largely unknown to those of earlier times. The complex civilization of today has produced women more vulnerable than the simple life of our grandmothers. I believe our responsibility increases in direct ratio to the so-called social and intellectual status of our patients.

A slight injury to the pelvic organs of a highly sensitive well-developed nervous organization will disarrange and render ataxic the sensitive machinery more than will a complex laceration with marked procidentia the laboring Polish woman with vital forces unimpaired. I would impress upon every practitioner in Michigan his responsibility in the care of a pregnant woman. Two lives may be dependent upon his care and skill. The happiness and well-being of a family, a nervous wreck consulting the gynecologist, or a victim of sepsis, may follow an error of management. We can never hope in all cases to have the proper conditions surrounding the lying-in woman. In a great many cases, of necessity ideal conditions are not possible.

First—If we are to answer this query in the affirmative, after seeing that our patient is brought to full term in as good physical condition as the circumstances will permit, in all cases when possible, a competent nurse should be insisted upon. The best accoucheur is powerless if as soon as he is away the patient becomes infected. You may say so many patients cannot afford to pay for a competent nurse; true, some cannot, but the proportion would be greatly reduced if they were made to see that they could better afford to pay a nurse than the possible expense of a funeral or years of invalidism. Present the subject in its true light, and many more will choose the nurse, and respect the doctor who at least tries to do his duty and properly care for his obstetric cases. No man in Michigan can properly care for obstetric cases without an intelligent nurse who has grasped the incurable dangers of sepsis. If no such person can be found, spend half an hour in fervid and heartfelt oratory to the most available person on the subject of absolute cleanliness and the horrors of sepsis, and you can make a trained nurse to order while you wait.

Second—One of the most prolific causes of injury and danger is too rapid delivery. By too rapid delivery I wish to be understood as the forcing of the child through the parturient canal before the protective changes in the opposing tissues have been brought about by time and interrupted pressure. This too rapid delivery may be excessive natural effort or injudicious artificial effort.

To properly and wisely guard against injurious haste in labor, we need to firmly fix in our minds the time required for natural labor.

From my observation of the frequent errors of early interference, with their disastrous effects, I would emphasize this point of time above all others that enter into the answer to our question. We need a definite knowledge of the



average time of normal labor. We must take into consideration the ever-varying individual peculiarities, and consider that one patient may need hours, while another may need only minutes, for certain changes to take place. Each case has a normal period of time distinctly her own, which again may vary with each confinement.

Notwithstanding these several personal variations, from a study of large numbers of cases we arrive at fairly satisfactory conclusions as to the time required to safely and conservatively complete the process, with the least possible offense to the tissues so commonly injured.

Hirst states that the average duration of all labors is from twelve to fifteen hours; in primiparae from twelve to twenty-four hours.

In the commonly quoted five hundred and six cases of Spiegelbergs' the three stages are given for primiparae as:

Stage of dilatation—fifteen hours.

Expulsion—two hours.

Third stage—one half hour, or seven-ten and one-half hours.

Multiparae:dilatation—eight hours.

Expulsion—one hour.

Placental—one-half hour, or nine and one-half hours.

I repeat, a proper conception of the long time required to bring about a condition of the parts for safe delivery without unnecessary injury to the structures and supports of the parturient canal is the keynote of successful and safe obstetrics.

My observation and experience at the bedside lead me to assert that more damage is needlessly done from a failure to remember that the nominal period of dilatation for primiparae is fifteen and maybe thirty-six, or even more hours, for that particular case, than from any other one cause. I am satisfied that many a woman is sacrificed or unnecessarily injured and invalidated from the

failure of her attendant to realize the necessity and value of time to bring about the physiological changes, indispensable to safe delivery. Abnormal conditions may demand violent abuse of organs as the lesser of two evils, but I am not discussing abnormal conditions. We must not, with our anaesthesia and our forceps, force these delicate structures to dilate and stretch to their utmost and beyond, before they have been prepared for the task by hours of natural effort. The process of dilatation of the cervix, obliteration of the cervical canal, relaxation of the lower uterine segment is a slow process in many cases. If given time, the physiological action of the longitudinal uterine fibers from above against a conical wedge within itself is a very different process from a force pulling from below against nothing but the supports of the uterine body and parturient canal. I quote from a former paper on this subject. This dilatation can, by no mechanical means known, be so safely accomplished as by the physiological processes attending the phenomena. A certain degree of edematous infiltration of the lower segment results from these paroxysmal contractions and relaxations, which require time. This infiltration permits relaxation without laceration.

In the second stage of labor, in preparing the pelvic floor, vaginal outlet and perineum for the great distention that is to come, this infiltration is undoubtedly of the greatest value in permitting a relaxation without rupture. This process of infiltration requires time.

In the second stage—in primiparae especially, without very clear indication of a necessity for hasty delivery, we should permit all the protective processes of infiltration, distention and recession and gradual paroxysmal effort ample time to prepare for the stretching that must otherwise result in lacerations. How unwise and how unscientific, then,

does it become to apply the forceps before we have the best possible obliteration of the cervical canal and lower uterine segment which terminates the first stage of labor. Yet how often are forceps applied as soon as sufficient dilatation to admit of their application is secured, and how deadly wrong it often proves to the patient.

To apply forceps high up before the head has entered the brim, or descended into the excavation, even with a well dilated or dilatable lower segment, is a dangerous procedure. I quote from the American Text-book of Obstetrics: "It should be resorted to only in exceptional cases. The higher the head the more dangerous the procedure." How much more dangerous to apply high forceps before we have a proper dilatation and exert the force often applied to the pull upon a lower undilated uterine segment. We are dragging with all the force exerted upon the uterine ligaments, the round ligaments, lower part of the broad ligament, and the uterosacral bands. If the bony structure of the pelvis resists us, we then endanger the anterior supports of the bladder, urethra, and vagina. If our efforts are successful in dislodging the head from the rapidly dilated or torn lower segment, what then occurs if we continue the delivery? We bring the head down upon the pelvic floor and perineum to the second stage of labor. This stage requires normally two hours, and may normally require six. Do we sit there from two to six hours and permit a proper relaxation of this pelvic floor? We should, if we are to properly protect our patient. As a rule, when the forceps are on the process is continuous and the delivery completed within an hour or less. The results are unnecessary injuries. We have forgotten the element of time in the second stage.

I would impress the fact that a wo-

man once injured by hasty delivery cannot by any process be perfectly repaired. The surgeon can fairly well readjust the torn tissues within reach, but tissues above and beyond our reach are injured. We can at best make but an imperfect repair; we cannot reach the upper margins of the torn supports.

Recognizing the impossibility of complete restoration, it becomes imperative that we use every means at command to prevent a condition being brought about incapable of repair. Do not understand me to criticise haste and violence even, where these are the lesser of two evils, as sometimes occurs. I wish simply to emphasize the dangers of rapid delivery which are real and not fancied. We should not permit a woman to die of exhaustion; but the proportion of women dying of delayed labor is small compared with that of those invalided for life, or dying from precipitate artificial delivery.

The obstetric forceps is one of the best adjuncts in protecting our patients when indicated—and when properly used—but I am convinced they play a very important and harmful part in many of the hasty deliveries that do injury. I would impress upon all in this discussion the indications for their use as laid down in the American Text-book. If used only when indicated they are a boon; when not indicated, they are an unmitigated curse.

We need frequent repetitions of these indications for their use:

First—Indicated in lingering labor, when the natural efforts are unable to effect delivery.

Second—When speedy delivery is imperative in the interest of the mother: as in hemorrhage, exhaustion, convulsion, advanced cardiac or pulmonary diseases, etc.

Third—When speedy delivery is indicated in the interest of the child, as in



impending death of the mother, or threatened asphyxia of the child.

Used when indicated, I have no quarrel with the obstetric forceps, but, used as they are in Michigan today, I repeat, they are sadly in need of condemnatory language unfit to publish. I would emphasize again their great possibilities of injury, and register an opinion that we are using them far too frequently to do our whole duty in properly caring for our obstetric cases.

Doctor John W. Clark in his "Résumé of Prolapsus"—*Progressive Medicine*, June, 1905, expresses the facts on this subject of hasty labor:

1. Never encourage a patient in labor to bear down until nature excites this inclination.

2. The use by the patient of tractors to increase the voluntary expulsive efforts is questionable.

3. Never apply forceps without complete dilatation of cervix. When a more precipitate delivery is necessary, it is best to incise the cervix."

We need not see so many cases of prolapsus with all its attendant evils if we determine to eliminate, by all means at our command, the precipitate and artificial deliveries.

Never use forceps without a positive indication. Secure a gradual passage of the head through the lower segment, vagina, and over the perineum. The prevalent use of artificial force, the habitual use of the forceps without positive indication for their use, the rapidity with which labor is consummated by these artificial means with the train of evils that follow this departure from natural physiological law, is what I would condemn.

The query: "Is the obstetrician being properly cared for?" is an important part of our discussion. I have stated that obstetric practice has not developed *pari passu* with surgery. Why? The obstetrician is not proportionately paid for

his arduous labor and great responsibility.

There are men in the larger cities who demand a proper remuneration for this work. They largely have made the advances. We are a commercial people. If great steel ships pay, they are developed; if powerful engines pay, they are here; if the newspapers pay, they are at our door when we get up; if automobiles pay, we are supplied, and so on through the whole range of human endeavor.

I venture the assertion that for the real wear and tear upon the physician, for the skill and knowledge required, time spent, sleep lost, and interference with normal living, no branch of medical service is so inadequately remunerated, taking all the physicians of our state collectively. There is no good reason for this in the logic of events. Why is it so? I would like to hear it discussed; possibly someone can tell me; I do not know. Why our state fee bill should put a fee of ten to twenty-five dollars on an obstetric case, and the same amount for circumcising the baby, I fail to comprehend. Personally, I would prefer to circumcise a whole flock of labies to attending one primipara, in so far as responsibility, fatigue, skill, danger, or anything else is concerned.

I would even prefer to choose my time for doing it and remove an appendix, or operate upon a hernia, to being on the *qui vive* for a week, and then going at 11 p. m. and spending the night laboring over a difficult and dangerous obstetric case. Either of the former would not much question a fee of a hundred dollars; but how many of us have the courage to ask that for the latter job? I say "job" advisedly; it is a job. Can not we, as a profession, here in Michigan, do something to correct this? Our fee system is wrong. You are asked how much do you charge for a confinement case. You state your price. I say You—I do not. As well ask you how



much you would charge for a typhoid fever case, or pneumonia, or any other ailment. You may have to make six or sixty visits, you cannot say. Why job lot it, then? When asked that question, we should state a fee for the confinement—no danger of getting it too high—and say I charge so much per visit; if you know how many it will require you can figure it out—I do not; and further, as to the fee, that will depend upon how long I have to stay and what I have to do, just the same as the plumber. This fixing a definite sum for a very indefinite undertaking is certainly not logical, and to the man who has not the prestige and reputation which enables him to fix a fee large enough to cover all contingencies, does a great injustice many times.

If the patient requires much service and many visits, or if the responsibility is great, we should get our pay. If the patient requires few visits, it is an injustice to charge them for what they do not get. So to charge by the visit, and with a more or less fixed fee, will be more satisfactory and fair, and almost always net the physician more money and be more cheerfully, because more equitably paid. This would be an advance over the practice now prevalent.

In conclusion, let me repeat the old adage, "the laborer is worthy of his hire," and let us resolve to claim for this arduous and responsible service to our patients, to whom this expense comes at most but a few times in a lifetime, better compensation than now prevails.

#### Discussion.

**Dr. Williams.** The forceps are used too often. Many cases of severe lacerations of the cervix are due to the unnecessary use of the obstetric forceps.

**Dr. Elliott.** To properly care for obstetric cases a nurse should be employed on all occasions when the patients can possibly afford it. In the country people do not realize the value of a nurse's services and it is often impossible to convince them that an obstetric nurse is at all desirable.

**Dr. Burleson** stated that it was his custom to have a large quantity of clean pieces of cloth prepared and baked to use as vaginal dressings after confinement.

**Dr. Manton.** The efforts to have an obstetric nurse for all cases are laudable. However, it

has been his experience that as soon as a nurse qualifies herself for obstetric work she wants too high a fee. Regarding the frequent application of forceps Manton believes there is no harm done if they are properly used.

**Dr. Collins,** closing. All tears of any size should be repaired. It is very often of advantage to wait a few hours until proper surroundings and assistance can be obtained. Collins believes that the forceps are dangerous instruments in the hands of average practitioners. There is always a temptation to use them too soon. Only lately he saw a case of complete detachment of most of the lower uterine segment as a result of applying forceps when the patient had been in labor only four hours. He would also disagree with Manton regarding the propriety of applying the forceps with the os not fully dilated.

## The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to B. R. Schenck, M. D., Editor, 502 Washington Arcade, Detroit, Mich.

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SEPTEMBER

### Editorial

The Prophylaxis of Typhoid is a subject to which every practitioner in the state should devote much thought. There were in Michigan last year, between fifteen and sixteen thousand cases of typhoid fever, with something over fifteen hundred deaths. These fifteen hundred deaths may be justly charged up to the medical profession, not perhaps to the physicians under whose care the cases came, but rather to the ignorance of prophylaxis and to the indifference in carrying out known principles of prevention.

That typhoid fever is a germ disease and therefore a preventable disease, has been common knowledge for more than twenty years. That man is practically the only host, and that the bacilli are given off in the feces and urine every doctor has known for a dozen years or more. Had each physician who had a case of typhoid fever under his care, personally seen to it that every evacuation of the bowel and bladder was sterilized, in other words, that not a single live bacillus escaped in this way to pollute some water or milk supply—had such precautions been taken by every physician in the state during the past twelve years, would there have been fifteen thousand cases and fifteen hundred deaths, last year in Michigan?



Municipal prophylaxis, a term used to denote the inspection and purification of

the water and milk supply, has received far more attention than has individual prophylaxis. Owing to the high cost of land about our waterways, and the impracticability of effectually patrolling the water sheds, a pure water supply is almost an impossibility in this country.

That impure water can be thoroughly purified, however, has been amply proven in many instances, notably at Hamburg during the cholera epidemic in 1892. In that city there were 18,000 cases of the disease in three months with over 7,000 deaths, while Altoona, which also took its water from the Elbe, but thoroughly purified it by sand filtration, had a total of but 516 cases. The effect of sand filtration on typhoid mortalities is well shown in the statistics of the city of Lawrence, Mass., where the death rate from 1887 to 1893 from typhoid varied from 111 to 137. In 1893 sand filtration was installed and the rate fell to from 16 to 33 per 100,000.

Detroit has a splendid water supply and a typhoid mortality of which her health officer may be justly proud, yet the conditions are right for a fearful epidemic, once the Detroit river becomes thoroughly polluted. No single improvement is so badly needed as is the installation of a modern filtration plant. The same is true in other cities of the state.

Important as is this municipal prophylaxis, it is a trifle beside individual prophylaxis. In fact it is made necessary only because the latter is neglected.



The lesson of individual prophylaxis is easy to learn, but more difficult to carry out. Early diagnosis and thorough disinfection are the watch words. But there are difficulties in the way. A great source of danger is from the more or less numerous patients suffering from the so-called "walking typhoid," who go about infecting the water supply or the food supply, and who are not discovered un-

til incalculable mischief has been done. Another source of danger is from the less numerous but none the less dangerous persons known as "bacilli carriers." Even in a recognized case, the physician must contend with ignorance and indifference, and defiance of orders.

Nevertheless, despite these difficulties, much can be done and should be done by every practitioner treating typhoid, and were well known precautions thus taken in every case, the sum total would be an immense stride toward lessening the mortality of next year.



**Special measures to be carried out** with the patient are enumerated by McCrea, as isolation, disinfection, the exclusion of flies and the overseeing of the attendants.

Until the laity are better educated in this matter it will be difficult to carry out isolation. Nevertheless an attempt should be made to place the patient in a room prepared as for one of the more infectious diseases. Superfluous furniture and hangings should be removed and the other members of the family kept from the room. Particularly important is it that one set of dishes should be kept for the patient, and these should be thoroughly boiled before washing with those used by the other members of the family.

The feces must be disinfected. This does not mean the pouring into the bed pan of a few ounces of carbolic or bichloride solution, shaking and emptying. A sufficient quantity of the solution must be used and it must be allowed to act for a sufficient length of time. The urine, the sputum, the clothing and the bath water must receive attention.

It has been repeatedly demonstrated that flies and other insects may carry infection on the exterior of the body, and it is therefore important not only to screen the patient, but also the excreta from them. If it is impossible to properly screen the house, as is often the

case, particularly in the rural districts, a net should be placed over the bed and care taken to properly protect all vessels and utensils soiled or used by the patient. Neglect of these precautions may be responsible for the infection of food and other members of the family may thus contract the disease.

Unless scrupulous care is observed, the nurse or attendant upon a typhoid patient runs a certain risk of infection. If possible to so arrange it, the one who has the care of the patient should have no part in the preparation of the food for herself or the members of the family.

An excellent set of rules is the following:

#### HOW TO TAKE CARE OF THE DISCHARGES FROM TYPHOID PATIENTS.

A circular of instructions issued by the Wilmington Water Department.

Typhoid fever is caused by a germ which finds its way into the food or, more frequently, the drinking water.

The germ causing typhoid fever is invariably derived from the stools and urine of persons suffering from the disease.

The disease may be also communicated through soiling one's hands with the discharges and then permitting the hands thus soiled to come in contact with the food.

Infection may be prevented by destroying the germs in the discharges by means of disinfectants.

Therefore, to save yourself as well as others from infection, observe the following precautions:

1. Keep on hand a five-gallon jug or other suitable vessel filled with any one of the following solutions:

Solution No. 1. Chlorid of lime of the best quality, guaranteed to contain at least 25 per cent of available chlorin and free from a strong odor on opening the box, 6 ounces to each gallon of water.

Solution No. 2. Formalin (40 per cent), 5 fluid ounces to each gallon or a little over a pint and a half to the 5 gallons of water.

Solution No. 3. Carbolic acid, 4 ounces to the gallon or a pint and a quarter to the 5 gallons of water.



The choice of any of these solutions should be determined by the ability to obtain the pure article. Whatever solution is used, the vessel should be kept tightly corked.

2. Have the receptacles for the stools (bed-pan, night-chamber, etc.) provided with a closely-fitting lid, or improvise a lid from several thicknesses of paper with some weight over it. It is better to have two receptacles of a kind so that a clean one may always be on hand for the patient's use.

3. When required for use, put 1 pint (2 glassfuls) of the disinfectant into the vessel (or if the urinal is used, one-quarter of a pint), that the discharges may come in contact with the disinfectant on their very issue from the body. No harm is done if some of the disinfectant should happen to spill on the bedclothes.

4. Remove the vessel containing the discharges to some secluded place in the house, add enough of the disinfectant to completely cover the discharges, stir up the contents with a small stick, replace the lid and allow it to stand for at least two hours. Remember that the longer you permit the discharges to come in contact with the disinfectant the more harmless do they become and the less obnoxious to handle.

5. If there is no water closet in the house, the discharges, after the disinfection, should be buried in the soil at least 100 feet from any well or stream.

6. When your hands become soiled with the discharges, they should be washed, first in the disinfectant (neither of the disinfectants will injure the skin), and then with soap and water.

7. All articles of the patient's clothing which have become soiled, and all the sheets, towels, napkins, etc., used by the patient should be kept in solution No. 2 or 3 (not in solution No. 1) until they are washed.

8. Use the disinfectant freely on all occasions requiring cleansing or soiled surfaces, and remember that "an ounce of prevention is worth a pound of cure."

Koch has demonstrated what may be accomplished by strictly enforcing measures such as these. In Germany, danger from water supplies has practically been eliminated and sanitarians are giving their attention to other modes of infection. In the western provinces, several

epidemics have been stamped out by the health officers. Every case is reported, completely isolated and everything in connection with the patient disinfected. Thus at Trier, 72 cases were discovered and handled in this way. Within three months there were no new cases, and none within that locality for some time. It is quite impossible to carry out these measures with anything like the same thoroughness in America. Nevertheless much can be accomplished by painstaking individual effort.



The interest shown in the subject of venereal disease and the public health has greatly increased in the last few years. Various symposia have been held, and there has resulted a widespread conviction that something ought to be done to limit the prevalence of gonorrhea, syphilis, and chancroids. However, like many another agitation in the medical world, this agitation has in many places given way to a painful quietude, and nothing is accomplished. In Michigan the State Society supports a committee on venereal prophylaxis; no report was made at the Saginaw meeting. A year or more ago a public meeting was held in Detroit, at which medical men, lawyers, clergymen and business men were asked to speak upon this subject. The occasion sowed seeds of interest, but has not as yet resulted in a harvest of things done.

In Chicago, on the other hand, an active campaign is being prosecuted. In May, of 1906, the Chicago Medical Society appointed a committee "to devise means for the education of the public in matters of sex, especially as to the disastrous prevalence of the venereal diseases and the frequent contamination of wives and children with these diseases." As a result of this committee's recommendation, there was formed the Chicago Society of Social Hygiene, incor-

porated under state laws, as an organization not for profit. In October, 1906, the society was ready for work, and their beginnings are of very great interest.

In the annual report of the secretary, the following is to be read:

The organized effort of the Society \* \* \* has been directed in three channels: first, the presentation to people of means and influence of the urgent need for such effort; second, the presentation to parents of the fact that their boys will certainly acquire knowledge of sexual matters at an early age, either in the street or at home—the parents must decide from which source this knowledge shall come; third, the presentation to young men of the dangers to body, mind, character and business success inseparable from illicit sexual indulgence, and the danger of ignorantly transmitting their own venereal diseases to their prospective brides and children.

The first of these objects has been sought by addressing personal letters to some 3,000 men and women; the second by the publication and circulation of 5,000 copies of a pamphlet entitled "The General Need for Education in Matters of Sex," comprising a series of articles by ten members of the Society; the third by informal addresses to audiences of young men, and by the circulation of over 30,000 copies of a leaflet entitled "Sexual Hygiene, a Circular of Information for Young Men." A copy of each of these publications has been mailed to each member of this Society.

The latter pamphlet became in great demand, not only in Chicago, but all over the country, by educational institutions, and Young Men's Christian Associations. This fact is significant, in its suggestion that the information is entirely new to thousands of people. It is not to be doubted that the dissemination of such circulars will do vast good, and the example is worthy of imitation. There is a fertile field for this kind of work, and the pioneers in it deserve unstinted praise.

The officers of the Chicago Society are giving it much time without recompense. The meagre income from membership

dues, donations, and sale of pamphlets has barely covered expenses, so that salaries are impossible. But in every state, if not in every city or county, there can be found men who would gladly emulate these Chicago men in their generosity and self-sacrifice.

Any person may obtain further knowledge concerning this society by communicating with its secretary, Dr. William T. Belfield, 100 State street, Chicago, or with the editor of this journal. Copies of pamphlets up to 100 in number, are sent free to responsible people, and larger quantities at a nominal charge.

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#### OLIVER A. LACRONE, M. D.

Dr. Oliver A. LaCrone, of Kalamazoo, died on July 18, at Mercy Hospital, Chicago, following an operation on the gall tract.

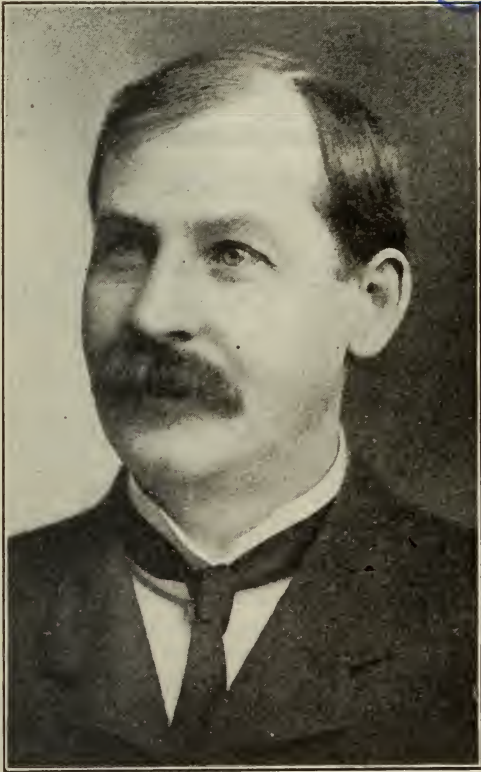
Dr. LaCrone was born December 21, 1859, at Springfield, Ohio. He commenced the study of medicine in 1880 at Berrien Springs, Mich., under Dr. W. F. Mason, and graduated from the Medical Department of the University of Michigan in 1886. He also took post-graduate courses at the University of Michigan and in Chicago. He practiced medicine in Berrien Center from 1886 to 1889, was assistant to the chair of medicine at the University of Michigan in 1889 and '90, and since then has practiced at Kalamazoo, limiting his practice to diseases of the eye, ear, nose and throat. He was consulting ophthalmologist to the Michigan Asylum for the Insane from 1893 and was special U. S. pension examiner from 1892 to the time of his death. He was a member of the American Medical Association, of the Michigan State Medical Society and of the Kalamazoo Academy of Medicine, being president of the latter society in 1895.

Dr. La Crone was a man of high ideals and professional attainments; a close stu-



dent, and progressive. He possessed those qualities that assure success and stand for the best citizenship. He earned a reputation that was more than local, attained a prominence in his specialty that was far above the average and that received favorable recognition from acknowledged leaders in the profession.

Socially the doctor's tendencies and



Oliver A. LaCrone, M. D.

tastes were decidedly cosmopolitan. He loved and thoroughly enjoyed the society of his fellow beings, was loyal to the core to his friends and possessed the happy faculty of winning over his enemies without sacrifice to his dignity and self-respect.

His death has removed from Kalamazoo

one of its most useful and influential citizens and from the medical profession an active and prominent member.

RESOLUTIONS ON THE DEATH OF DR. OLIVER A. LACRONE.

Adopted by the Kalamazoo Academy of Medicine.

WHEREAS, Death has, by a law immutable, entered once more the circle of the Kalamazoo Academy of Medicine and taken away one of its best-loved members; and

WHEREAS, The Kalamazoo Academy of Medicine appreciated Dr. La Crone's great worth to his chosen profession, his valuable public services, his kindly, genial manners, and charitable work, the influence of which will long endure after the names of others shall have been forgotten,

RESOLVED, That the Academy of Medicine, feeling its own deep loss, most sincerely extends its sympathy to the family and friends on this occasion of their deep sorrow.

RESOLVED, That the Kalamazoo Academy of Medicine at an appointed time shall hold suitable memorial services in memory of Dr. LaCrone.

RESOLVED, That the medical profession of Southern Michigan be and are hereby invited, as a last token of esteem, to attend in a body the funeral services of Dr. LaCrone, who held enmity toward none and charity to all.

FURTHER RESOLVED, That a copy of these resolutions be sent to the family and friends, a copy to each of the daily papers and a copy spread upon the records of the Academy.

By the Committee:

FREDERICK SHILLITO,  
PAUL T. BUTLER,  
J. T. UPJOHN.

Adopted by the Medical Staff of the Michigan Asylum for the Insane.

WHEREAS, Our friend and co-worker, Dr. O. A. LaCrone, has passed to his last rest, we, the Trustees and Medical Staff of the Michigan Asylum for the Insane, wish to enter upon our records an expression of our appreciation of him and the services which he rendered so faithfully to our institution; and,

WHEREAS, In his death, we have lost not only a most genial companion and friend but an adviser and counsellor as well, one who was never too



weary nor too busy to respond to our call and whose medical knowledge and skill were ever at our service, giving generously and cheerfully his time and ability to suffering humanity; it is therefore

RESOLVED, That we extend to his sorrowing family our heartfelt sympathy in their time of affliction; and it is further

RESOLVED, That a copy of these resolutions be spread upon the minutes and a copy be sent to his bereaved family.



### JAMES F. CANAVAN, M. D.

In the death of Dr. James F. Canavan, which occurred from appendicitis, on July 26, 1907, at the Northern Michigan Asylum, the institution loses a most efficient member of its staff, and one who will be very greatly missed, not alone by his colleagues, but by all who knew him.

Dr. Canavan was born March 11, 1876, at Holyoke, Massachusetts, where he received his literary education, and in 1895 entered the Department of Medicine and Surgery, at Ann Arbor, Michigan, where he graduated in 1899. The same year he was called to a position on the staff of the Northern Michigan Asylum, at Traverse City, where he soon became first assistant, which position he held at the time of his death.

On May 17, 1905, he was united in marriage to Dr. Myrtel M. Moore, of St. Johns, Michigan.

No physician could have been more careful or painstaking in trying to do everything possible to relieve, in the face of impossible cures, the unfortunates who came under his care. He looked after these patients when they were sick with the same interest and sympathetic care that would be expected to be given to useful and industrious individuals.

Dr. Canavan was an enthusiastic worker in psychiatry and had done a great deal of research work along those lines. Together with his most esteemed helpmate, Dr. Myrtel Canavan, there was much to

be expected of them by the profession in the near future.

All during his college days and up to the time of his last illness, his chief desire was to do some deed of kindness to all he could, and to enrich his chosen profession by his untiring labors.

He was a man of sterling character, marked ability, and an ambition beyond his powers of endurance. Such lives as his, cut down in the bloom of youth, with a noble work unfinished, make our sorrow most profound, and our sincere sympathy goes out to those loved ones from whom he must be separated.

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## Book Notices

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**Physicians' Manual of the Pharmacopœia and the National Formulary.** By C. S. N. Hallberg, Ph. G., M. D., and J. H. Salisbury, A. M., M. D. Chicago. Published by the American Medical Association, 1907. pp. 198. Fifty cents.

This little manual, bound in flexible covers, printed on thin paper, and made into pocket size, is a valuable digest of all the remedies contained in both the U. S. Pharmacopœia and the National Formulary. The introduction gives some excellent points regarding the use of official, semi-official, and non-official remedies, and is worth careful perusal. The book affords a convenient reference to all other standard remedies, giving technical or official name, chemical name, popular name, uses, and dosage, with exact formulæ of all compounds and mixtures. The arrangement follows alphabetic order, and substances with compound names will be found twice; e. g., Emulsion Olei Morrhuae is found under Emulsions and also under oleum. There is a Therapeutic Index that is very useful, and also an index of synonyms.

The manual is so useful that it ought to have wide distribution. Constant association with it would deter many a physician from prescribing questionable patent and proprietary medicines.

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**International Clinics.** 17th series, Vol. II. Edited by W. T. Longcope, M. D. Philadelphia, J. B. Lippincot Company, 1907.

The second volume of the 1907 series contains 25 original articles on treatment, medicine, sur-

gery, gynecology, pediatrics, neurology and pathology. There are 42 excellent illustrations. All of the articles are good; especially timely are those on the "Vaccine Treatment of Infectious Diseases," by Cole, "A Plea for Laparotomy rather than Paracentesis in Ascites," by Dock, and "The Bone Marrow," by Dickson.

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**Hare's Therapeutics.** A Text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Physician to the Jefferson Hospital, etc. New (12th) edition, enlarged and thoroughly revised. In one octavo volume of 939 pages, with 114 engravings and four colored plates. Cloth, \$4.00, net. Lea Brothers & Co., Philadelphia, 1907.

Few medical books have had a larger sale than Hare's "Practical Therapeutics," the twelfth edition of which is just from the press. It has been thoroughly revised and a considerable number of therapeutic advances have been incorporated. A description of a number of new drugs has been added to the section on materia medica.

The book is a splendid one for reference, but in our opinion, its arrangement makes it unfit to put into the hands of students. To study drugs alphabetically, is like learning theorems in geometry by number, the student getting absolutely no perspective on the subject. To study diseases alphabetically is likewise confusing.

As a desk book for ready reference, however, this volume has few equals.

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**Schleif's Materia Medica and Therapeutics.** A Pocket Text-book of Materia Medica, Therapeutics, Prescription Writing, Medical Latin and Medical Pharmacy. By William Schleif, Ph. G., M. D., University of Pennsylvania, Philadelphia. New (3d) edition, 12mo, 470 pages. Cloth, \$2.50, net. Lea Brothers & Co., Philadelphia, 1907.

This neatly printed and bound volume contains the usual information regarding the pharmacopoeial drugs, logically grouped according to their physiologic action. There are also a therapeutic index of new remedies and a table of doses. The index is good. The volume is to be recommended.

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**The Care of the Baby.** By J. P. Crozer Griffith, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylv.

vania. Fourth Revised Edition. 12mo of 455 pages, illustrated. Cloth, \$1.50 net. W. B. Saunders Company, Philadelphia, 1907.

Griffith's little book on the care of the baby has been popular, and deservedly so for it contains much very valuable information. This new edition has been improved by additions to both text and illustrations. It is a safe book to place in the hands of the expectant mother; it is a good book to which to refer for information on the little things which contribute so much to an infant's welfare.

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**Importance of Supervision of Apparently Cured Tuberculosis Patients After they Leave Sanatoria.**—FREDERICK L. KNIGHT, Boston (*Journal A. M. A.*, July 27) asserts that the proper and satisfactory control of tuberculosis in the future will involve a continued knowledge on the part of some authority not only of the individuals infected, but of their families and all surroundings. He believes that this duty should be assigned not to local boards of health, but to special local boards, who should gain the desired results with as little publicity as possible. These local boards should be composed of persons really interested in the subject, who should work cautiously and be sufficiently discreet not to create a panic in the local neighborhoods. One of the functions of such a board should be to supervise patients who, apparently cured, return home from treatment at sanatoria or elsewhere. The better class of patients will usually consult their physicians and arrange some hygienic mode of life for the immediate future; but the poorer class are sent out with some good general advice as to out-door life, employment, etc., but with no idea how to obtain them. It is patients of this class that need to be guided. One of the most promising ways of helping to maintain the health of those restored at sanatoria is by the establishing of labor or farm colonies, where gardening, farming, raising of chickens, keeping of bees, cultivation of flowers, etc., can be carried on, with gradually increasing hours and severity of work, under medical supervision. This can be done at some of the sanatoria, where they have land enough, or at special farms devoted to the purpose, like convalescent homes. In fact, many patients, he states, could and would be better for doing some work of this kind during a part, or in some cases all of their time at the sanatoria; provided there are grounds enough to set up such regime at the institution.



CONSTITUTION AND BY-LAWS.  
OF THE  
MICHIGAN STATE MEDICAL SOCIETY

ADOPTED AT PORT HURON, JUNE 26, 1902.

ARTICLE I.—NAME OF THE SOCIETY.

The name and title of this organization shall be the Michigan State Medical Society.

ARTICLE II.—PURPOSES OF THE SOCIETY.

The purpose of this Society shall be to federate and to bring into one compact organization the entire medical profession of the State of Michigan and to unite with similar Societies in other States to form the American Medical Association; with a view to the extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interests; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine; so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES.

Component Societies shall consist of those County Medical Societies which hold charters from this Society.

ARTICLE IV.—COMPOSITION OF THE SOCIETY.

SECTION 1. This Society shall consist of Members, Delegates, and Honorary Members.

SEC. 2. *Members.* The Members of this Society shall be the members of the Component County Medical Societies.

SEC. 3. *Delegates.* The Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective Component County Societies in the House of Delegates of this Society.

SEC. 4. *Honorary Members.* Honorary mem-

bers shall be of two classes, resident and non-resident.

SEC. 5. Resident Honorary Members shall be chosen from those who have practiced medicine not less than *thirty* years and have been active members in good standing of this Society for at least *ten* years. They shall be nominated by the Council at any of its meetings and may be elected by the House of Delegates at the Annual Meeting following such nomination. They shall have all the privileges of the Society and receive all publications without the payment of dues. Not more than five Resident Honorary Members shall be elected at any one meeting.

SEC. 6. Any distinguished physician, not a resident of this State, may be elected an Honorary Member, provided he has been nominated by the Council at a previous meeting. Not more than two non-resident Honorary Members shall be elected at any one meeting.

ARTICLE V.—HOUSE OF DELEGATES.

The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by the Component County Societies, and (2) *ex-officio*, the officers of the Society as defined in this Constitution, without power to vote. (*As amended June 28, 1905.*)

ARTICLE VI.—SECTIONS AND DISTRICT SOCIETIES.

The House of Delegates may provide for a division of the scientific work of the Society into appropriate Sections, and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of the Component County Societies.

ARTICLE VII.—SESSIONS AND MEETINGS.

SECTION 1. The Society shall hold an Annual Session during which there shall be held daily



General Meetings, which shall be open to all registered members and delegates.

SEC. 2. The time and place for holding each Annual Session shall be fixed by the House of Delegates.

#### ARTICLE VIII.—OFFICERS.

SECTION 1. The officers of this Society shall be a President, four Vice-Presidents, a Secretary, a Treasurer, and twelve Councilors.

SEC. 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretary and the Treasurer shall be elected by the Council at its Annual Meeting in January, and each shall hold his office for one year. The Councilors shall be elected for terms of six years each, these terms being so divided that four Councilors shall be chosen each alternate year. All of these officers shall serve until their successors are elected and installed. (*As amended May 14, 1907.*)

SEC. 3. The officers of this Society, not otherwise elected, shall be elected by the House of Delegates on the morning of the last day of the Annual Session; but no Delegate shall be eligible to any office named in the first section, except that of President or Councilor; and no person shall be elected to any such office who has not been a member of this Society for at least two years.

#### ARTICLE IX.—FUNDS AND EXPENSES.

SECTION 1. Funds for meeting the expenses of the Society shall be provided by a yearly fee of two dollars for each member, payable in advance to the Secretary of this Society by the Secretary of his Component County Society, and from the profits of its publications.

SEC. 2. Funds may be appropriated by the House of Delegates, subject to an approval by the Council, to defray the expenses of the Annual Sessions, for publication, and for such other purposes as will promote the welfare of the Society and the profession.

#### ARTICLE X.—RECIPROCITY OF MEMBERSHIP AMONG STATE SOCIETIES.

To broaden professional fellowship among the State Societies, the Michigan State Medical Society, by its President and Secretary, is ready to arrange with other State Medical Societies, having equal requirements, for the interchange of certificates of membership. Members removing

from one of these States to another may thus avoid the formalities of re-election.

#### ARTICLE XI.—REFERENDUM.

The General Meeting of the Society may by a two-thirds vote order a general referendum upon any question pending before the House of Delegates, and the House of Delegates may by a similar vote of its own members, or after a like vote of the General Meeting, submit any such question to the members of the Society for a final vote; and, if the persons voting shall comprise a majority of all the members registered at the session, a majority of such vote shall determine the question, and be binding upon the House of Delegates.

#### ARTICLE XII.—THE SEAL.

The Society shall have a common Seal, with power to break, to change or to renew the same at pleasure.

#### ARTICLE XIII.—AMENDMENTS.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each Component County Society at least four months before the session at which final action is taken.

### BY-LAWS.

#### CHAPTER I.—MEMBERSHIP.

SECTION 1. All members of the Component County Societies, who are not in arrears for dues, shall be privileged to attend all meetings and to take part in all of the proceedings of the Annual Session, and shall be eligible to any office within the gift of the Society, except as otherwise provided. See Constitution, Art. VIII., Sec. 3.

Any member in arrears for dues to the amount of one year or more may regain membership either by paying up all back dues or by being again elected to membership. (*As amended June 29, 1905.*)

SEC. 2. The name of a physician upon the properly certified roster of members, or list of delegates, of a chartered County Society shall be

prima facie evidence of his right to register at the Annual Session in the respective bodies of this Society.

SEC. 3. No person who is under sentence of suspension or expulsion from any Component Society of this Society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Society; nor shall he be permitted to take part in any of its proceedings until such time as he has been relieved of such disability.

SEC. 4. Each member in attendance at the Annual Session shall enter his name on the registration book, indicating the Component Society of which he is a member. When his right to membership has been verified by reference to the roster of his Society he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that Session. No member or delegate shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

#### CHAPTER II.—ANNUAL AND SPECIAL SESSIONS OF THE SOCIETY.

SECTION 1. The Society shall hold an Annual Session at such time and place as has been fixed at the preceding Annual Session.

SEC. 2. Special sessions of either the Society or the House of Delegates may be called by the President at his discretion or upon petition of twenty delegates.

#### CHAPTER III.—GENERAL MEETINGS.

SECTION 1. The General Meetings shall include all registered members and delegates, who shall have equal rights to participate in the proceedings and discussions, and to vote on pending questions. Each General Meeting shall be presided over by the President, or in his absence or disability, or by his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the annual address of the President, and the entire time of the Session, so far as may be, shall be devoted to papers and discussions relating to scientific medicine.—(*As amended May 23, 1906.*)

SEC. 2. The General Meeting shall have authority to create committees or commissions for scientific investigations of special interest and importance to the profession and public, and to receive and to dispose of reports of the same; but

any expense in connection therewith must first be concurred in by the Council.

SEC. 3. Except by special vote the order of exercises, papers and discussions as set forth in the official program shall be followed from day to day until it has been completed.

SEC. 4. No address or paper before the Society, except that of the President, shall occupy more than fifteen minutes in its delivery; and no member shall speak longer than five minutes, or more than once on any subject.—(*As amended May 25, 1906.*)

SEC. 5. All papers read before the Society shall be its property. Each paper read shall be deposited immediately with the Secretary, but the author may also publish the same in any reputable journal not published in this State, provided the printed article bears the statement that it was "read before the Michigan State Medical Society."

#### CHAPTER IV.—HOUSE OF DELEGATES.

SECTION 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate.

SEC. 2. The House of Delegates shall meet annually at the time and place of the Annual Session of the Society, and shall so fix its hours of meeting as not to conflict with the first General Meeting of the Society, or with the meeting held for the address of the President, and so as to give delegates an opportunity to attend the other scientific proceedings and discussions so far as is consistent with their duties. But, if the business interests of the Society and profession require, it may meet in advance, or remain in session after the final adjournment of the General Meeting. (*As amended May 25, 1906.*)

SEC. 3. A majority of the registered delegates shall constitute a quorum. All of the meetings of the House of Delegates shall be open to members of the Society.

SEC. 4. It shall consider and advise as to the interests of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and to enforce all proper medical and pub-

lic health legislation, and to diffuse popular information in relation thereto.

SEC. 5. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body in such a manner that at least one of the delegates shall be elected each year.

SEC. 6. It shall divide the counties of the State into twelve Councilor Districts. When the best interest of the Society and the profession will be promoted thereby, it may organize in each a District Medical Society, to meet midway between the Annual Sessions of this Society. Members of the chartered County Societies, and no others, shall be members in such District Societies. (*As amended May 26, 1904.*)

SEC. 7. It shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates, and such committees may report to the House of Delegates in person, and may participate in the debate thereon.

SEC. 8. It shall approve all memorials and resolutions issued in the name of the Society before the same shall become effective.

SEC. 9. It shall present a summary of its proceedings to the last General Meeting of each Annual Session, and shall publish the same in the Journal of the Society.

SEC. 10. The House of Delegates shall provide for the division of the scientific work of the Society into appropriate Sections:

First—A Section on General Medicine.

Second—A Section on Surgery, Ophthalmology and Otology.

Third—A Section on Obstetrics and Gynecology.

#### CHAPTER V.—SECTIONS.

SECTION 1. Sections shall hold their meetings at such times and in such places as shall not interfere with the General Meetings.

At each Annual Meeting a Chairman shall be chosen for each Section, to serve for one year. A Secretary shall be chosen every second year to serve for two years or until his successor is elected:

All papers, communications and matters of technical or professional nature shall be referred to the Section to which they pertain.

#### CHAPTER VI.—ELECTION OF OFFICERS.

SECTION 1. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect, unless otherwise provided.

SEC. 2. The House of Delegates shall elect annually at its first meeting a Nominating Committee of five from the House of Delegates, no two of whom shall be from the same Councilor District.—(*As amended, June 11, 1903.*)

SEC. 3. The Nominating Committee shall nominate the first, second, third and fourth Vice-Presidents, the Councilors from the Districts in which there are vacancies, and the Representatives to the House of Delegates of the American Medical Association. In so far as possible, the Vice-Presidents shall be selected with especial reference to the promotion of the work of the Councilors in the four Districts nearest their respective residence.

SEC. 4. The report of the Nominating Committee and the election of the officers nominated shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the Session.

SEC. 5. Nothing in this article shall be construed to prevent additional nominations being made by members of the House of Delegates.

SEC. 6. Any member of the Society is eligible to the office of President, and nominations to this office may be made and seconded by any member of the same.

SEC. 7. The nominations, for President shall be made the first order of miscellaneous business at the General Meeting of the Society on the first day of the Annual Session. Under no other circumstances shall a nomination or announcement of candidates be made in open session.

SEC. 8. A locked ballot box, for the reception of ballots, in the custody of the Committee on Nominations above mentioned, shall be placed in or about the hall where the General Meetings are held. One or more of the Committee on Nominations shall receive and deposit the ballots in the box, at the same time checking the name of the voter from the list of those entitled to vote, which list shall include all the members of the Society registered at the meeting.

SEC. 9. The polls shall close at 11 o'clock a. m., on the last day of the Session. The result of the canvass shall be reported to the Society at the close of the General Meeting.—(*As amended, May 25, 1906.*)



SEC. 10. The person receiving the largest number of votes on the presidential ticket shall be declared President.

SEC. 11. In the event of a tie vote on the presidential office the presiding officer shall submit the names of the candidates in alphabetical order to the viva voce vote of the meeting, and the one receiving the greatest number of votes shall be declared President.

SEC. 12. The Secretary and the Treasurer shall be elected by the Council at its meeting in January, as provided.

#### CHAPTER VII.—DUTIES OF OFFICERS.

SECTION 1. The President shall preside at all meetings of the Society and of the House of Delegates; shall appoint all committees not otherwise provided for; shall deliver an annual address at such time as may be arranged; shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall, as far as practicable, visit by appointment the various sections of the State and assist the Councilors in building up the County Societies, and in making their work more practical and useful.

SEC. 2. The Vice-Presidents shall assist the President in the discharge of his duties, and the Council in the organization and nurture of County Societies.

SEC. 3. The Treasurer shall give bond for the trust reposed in him, as fixed by the Council. He shall demand and receive all funds due the Society, together with bequests and donations. He shall, under the direction of the Council, sell or lease any estate belonging to the Society, and execute the necessary papers; and shall, in general, subject to such direction, have the care and management of the fiscal affairs of the Society. He shall pay money out of the Treasury only on the written order of the Chairman of the Council, countersigned by the Secretary of the Society; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of the doings and of the state of the funds in his hands to the Council.

SEC. 4. The Secretary, acting with the Committee on Scientific Work, shall prepare and issue the programs for and attend all meetings of the Society and of the House of Delegates, keeping minutes of their respective proceedings in separate record books. He shall be custodian of all record books and papers belonging to the Society, except

such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates at the Annual Sessions. In so far as it is in his power he shall use the printed matter, correspondence and influence of his office to aid the Councilors in the organization and improvement of the County Societies, and in the extension of the power and usefulness of this Society. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall be Editor of the Journal of this Society, and shall employ such assistants as may be ordered by the Council. He shall annually make a report to the Council at the January meeting and the essentials of this report shall be incorporated in the report of the Chairman of the Council to the House of Delegates at the next Session.—(*As amended, May 25, 1906*).

In order that the Secretary may be enabled to give that amount of time to his duties which will permit of his becoming proficient, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the Council.

SEC. 5. The Council shall hold daily meetings during the Annual Session of the Society and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. Three Councilors shall constitute a quorum for the transaction of business. The Council shall meet on the last day of the Annual Session of the Society for reorganization and for the outlining of the work for the ensuing year. At this meeting it shall elect a Chairman and a Secretary.

It shall hold a meeting in January of each year at a date and place fixed by the Chairman. It shall keep a permanent record of its proceedings, and through its Chairman make an annual report to the House of Delegates at such time as may be provided.

SEC. 2. Collectively the Council shall be the Board of Censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the Component Societies, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or of a County

Society, upon which an appeal is taken from the decision of an individual Councilor. Its decision in all such cases shall be final.

SEC. 3. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such County Societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality, and shall continue these efforts until every reputable physician of the State has been brought under medical society influence.

SEC. 4. It shall upon application provide and issue charters to County Societies organized to conform to the spirit of this Constitution and By-Laws.

SEC. 5. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies. These societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for County Societies, until such counties may be organized separately.

SEC. 6. The Council shall provide and superintend the publication and distribution of all proceedings, transactions and memoirs of the Society, and shall have authority to appoint an editor and such assistants as it deems necessary. Further, to facilitate this work, it shall be the duty of the Secretaries of the Sections, during each Annual Session, or as soon thereafter as practicable, to deliver to the Editor, or his duly appointed agent, all such proceedings, reports, addresses, papers and other documents, as may have been ordered for publication. All money received by the Council, or its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Society, and all orders on the Treasurer for disbursements of money in any way connected with the work of publication must be endorsed by the Chairman of the Council and countersigned by the Secretary of the Society. All matters of the Society pertaining to the expenditure of money for other purposes shall be referred, during the Annual Session, to the Council, who shall report upon the same within twelve hours,

and if the House of Delegates orders the expenditure of money in connection with said report, the payment shall be made by the Treasurer as provided above. It shall be the further duty of the Council to hold the official bond of the Treasurer for the faithful execution of his office, annually to audit and authenticate his accounts, and to present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Society during the year, and the amount of all other property belonging to the Society under its control, with such suggestions as it may deem necessary.

In the event of a vacancy in the office of the Secretary of the Society, or the Treasurer, the Chairman of the Council shall fill the vacancy ad interim until the next meeting of the Council.

SEC. 7. Each Councilor shall be organizer, peacemaker and censor for his District. He shall visit each county in his District at least once a year for the purpose of organizing component societies where none exists, inquiring into the condition of the profession, and for improving and increasing the zeal of the County Societies and their members. He shall make, on blanks furnished by the State Secretary, a report of his doings and of the condition of the profession of each county in his District to the Council at its Annual Meeting in January. The necessary traveling expenses, not to exceed twenty-five dollars annually, incurred by such Councilor in the line of duties herein imposed, may be allowed by the House of Delegates upon a proper itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Society.—(*As amended, June 29, 1905.*)

#### CHAPTER IX.—COMMITTEES.

SECTION 1. The standing committees shall be as follows:

- A Committee on Scientific Work.
- A Committee on Public Policy and Legislation.
- A Committee on Arrangements.
- A Committee on Medical Education.

(*As Amended, May 25, 1906, and May 16, 1907.*)

SEC. 2. The Committee on Scientific Work shall consist of the President, who shall be the Chairman, the Secretary, and the Chairmen and Secretaries of the Sections. It shall determine the character and scope of the scientific proceedings of the Society for each session, subject to the



instructions of the House of Delegates, or of the Society, or to the provisions of the Constitution and By-Laws. Thirty days previous to each Annual Session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented, which shall be adhered to by the Society as nearly as practicable.

SEC. 3. The Committee on Public Policy and Legislation shall consist of three members appointed by the President. Under the direction of the House of Delegates it shall represent the Society in securing and enforcing legislation in the interest of the public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall utilize every organized influence of the profession to promote the general influence in local, state and national affairs and elections.

No bill or proposed law or amendment thereto shall be introduced in the State Legislature or sent to any member thereof in the name of this Society or by any of its committees until such proposed Legislation shall have been endorsed and approved by the Council of this Society in regular session.

After any proposed legislation shall have been endorsed by the Council, it shall be referred to the Committee on Public Policy and Legislation, who shall thereupon have it presented for passage at Lansing, and take such steps as may be deemed necessary to secure for it the united endorsement of the Medical Profession throughout the State, and to that end it shall be the duty of the Secretary of this Society under the direction of the Committee on Legislation and Public Policy, to have printed and issued to the various County Societies, or to each member thereof as the case may require, circular letters and letters of endorsement to be addressed by physicians to their representatives at Lansing, asking for the support and passage of the legislation so approved.—(*As amended, May 16, 1907*).

SEC. 4. The Committee on Arrangements shall consist of five members of the County Society in the territory in which the Annual Session is to be held, and shall be appointed by the President of the Society. It shall, by committees of its own selection, provide suitable accommodations for the meeting place of the Society, the House of Delegates, the Council and the Sections, and shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements

to the Secretary for publication in the program.

SEC. 5. The Committee on Medical Education shall consist of three members, one to be appointed for one year, one for two years, and one for three years, thereafter one member to be appointed each year; said committee shall select one of its own members as a Delegate to the yearly conference on Medical Education of the American Medical Association.—(*As amended, May 16, 1907*).

#### CHAPTER X.—AUTHORITY IN EMERGENCIES.

When prompt speech and action are imperative with reference to matters concerning which the views of the Society are well known, authority to speak and act for it is vested by the Michigan State Medical Society in its President and Council.—(*As adopted, June 30, 1905*).

#### CHAPTER XI.—ASSESSMENTS AND EXPENDITURES.

SECTION 1. An assessment of two dollars per capita on the membership of the Component Societies is hereby made the annual dues of this Society. The Secretary of each County Society shall forward its assessment with a roster of all officers and members to the Secretary of this Society as soon after the annual meeting of the County Society as possible; not later than December 31st.

SEC. 2. Any County Society which fails to pay its assessment, or to make the reports required, on the date above stated, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society or of the House of Delegates until such requirements have been met.

SEC. 3. All motions or resolutions appropriating money shall specify a definite amount for the purpose indicated, and must be approved by the Council.

#### CHAPTER XII.—RULES OF CONDUCT.

The principles set forth in the Code of Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

#### CHAPTER XIII.—RULES OF ORDER.

The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, unless otherwise determined by a vote of its respective bodies.



## CHAPTER XIV.—COUNTY SOCIETIES.

SECTION 1. All County Societies now in affiliation with the State Society or those which may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, or with the code of ethics of the American Medical Association, shall, upon application to the Council, receive a charter and become a component part of this Society, subject to the condition described in Sec. 4 of this Chapter. A roster of its officers and members and the annual dues of \$2 for each member must accompany the application.

SEC. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws a medical society shall be organized in every county in the State in which no component society exists.

SEC. 3. Charters shall be issued only upon approval of the Council, and shall be signed by the President and Secretary of this Society. The Council shall have authority to revoke the charter of any Component Society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws or the Code of Ethics of the American Medical Association.

SEC. 4. Only one Component Medical Society shall be chartered in any county. Where more than one County Society exists, friendly overture and concessions shall be made, with the aid of the Councilor for the District if necessary, and all of the members brought into one organization. In case of failure to unite an appeal may be made to the Council, which shall decide what action shall be taken.

SEC. 5. Each County Society shall judge of the qualifications of its own members; but, as such societies are the only portals to this Society and to the American Medical Association, every reputable and legally registered physician who is practicing, or who will agree in writing over his own signature to practice, non-sectarian medicine only, and to sever all connections with sectarian colleges, societies and institutions, shall be entitled to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

SEC. 6. Any physician who may feel aggrieved by the action of the Society of his County in refusing him membership, or in suspending or expelling him, shall have the right of appeal to the Council.

SEC. 7. In hearing appeals the Councilor or the Council may admit oral or written evidence as in his or its judgment will best and most fairly present the facts. Efforts at conciliation and compromise shall, however, precede all such hearings.

SEC. 8. When a member in good standing in a Component Society moves to another county in this State, his name, upon request, shall be transferred without cost to the roster of the County Society into whose jurisdiction he moves.

SEC. 9. A physician living near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

SEC. 10. Each County Society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the county.

SEC. 11. At the Annual Meeting in the fall, or at the first meeting after January 1st, due notice having been given, each County Society shall elect annually a delegate and alternate, or delegates and alternates to represent it in the House of Delegates of this Society in the proportion of one delegate to each FIFTY members or major fraction thereof (see By-Laws, Chapter IV., Sec. 1.) The Secretary of the County Society shall immediately send the list of its delegates to the Secretary of this Society.—(*As amended, June 29, 1905*).

SEC. 12. The Secretary of each County Society shall keep a roster of its members, and a list of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall annually furnish an official report containing such information, upon blanks supplied him for the purpose, to the State Secretary by the first day of January. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his report shall be certain to account for every physician who has lived in the county during the year.—(*As amended, June 29, 1905*).

## CHAPTER XIV.—AMENDMENTS.

These By-Laws may be amended at any Annual Session by a majority vote of all the Delegates present at that Session after the amendment has laid upon the table for one day.

## County Society News

### UPPER PENINSULA MEDICAL SOCIETY.

The annual meeting of the Upper Peninsula Medical Society was held in the lecture hall of the Spies Public Library, Menominee, July 16 and 17, 1907. A regular quarterly meeting of the Fox River Valley Medical Society of Wisconsin was held at the same time, some of the sessions being held jointly.

The papers read were as follows:

A Survey of the Endemic and Epidemic Bowel Disturbances Prevailing in Escanaba. O. C. Breitenbach, Escanaba.

The Treatment of Gonorrheal Infection of the Female Genital Tract. D. W. Ross, Manistique.

The Preparation of Catgut. A. W. Hornbogen, Marquette.

Acute Mastoiditis. C. R. Elwood, Menominee.

Accouchement Force. E. T. Abrams, Dollar Bay.

The Professional Secret and the Laws. C. L. Girard, Escanaba.

Umbilical Hernia. W. R. Hicks, Menominee.

Hygienic Measures in Therapeutics. H. T. Carriel, Marquette.

The social features of the meeting included a banquet at the Stephenson Hotel, at which the members of the Upper Peninsula and Fox River Valley Medical Societies were entertained by the members of the Menominee and Marinette County Medical Societies.

The following resolution was adopted unanimously:

*Be It Resolved*, That the Upper Peninsula Medical Society of Michigan in convention assembled, is thoroughly convinced that the establishment of a Sanitarium for the treatment of Tuberculosis, in the Upper Peninsula, is an urgent necessity that demands immediate attention—and further that the plan suggested by Dr. F.

McD. Harkin of having a Joint Conference of supervisor—delegates, and physician—delegates from each and every county in the upper peninsula to meet, confer and decide upon the question is timely and appropriate.

2nd. That Dr. Harkin be empowered to appoint the physicians who will give the addresses of instruction to the Board of Supervisors in the different counties, and further that such appointed physicians constitute the commission of physicians—to confer with the supervisor-delegates as soon as can be made convenient.

The following officers were elected:

Dr. B. T. Phillips, of Menominee, President.

Dr. C. L. Girard, of Escanaba, Vice-President.

Dr. W. T. S. Gregg, of Calumet, Second Vice-President.

Dr. H. J. Hornbogen, of Marquette, Secretary.

The meeting was a highly successful one, some fifty members being present. The Society will meet next year in Marquette.

R. A. WALKER, Sec'y.

(The papers of Drs. Breitenbach, Girard, Carriel and Hornbogen will appear next month.)

## Correspondence.

Marienbad, Germany, July 25, 1907.

To the Editor:—

Our mail very frequently contains literature and samples sent by various concerns. Among the houses which are well known to the profession, are the Farben-Fabriken, formerly Friedrich Bayer & Company of Elberfeld. Their products, Trional, Aspirin, Tannigen, Protargol, Alypin, etc., are very familiar to us. As the opportunity presented itself to see the Elberfeld branch of the house, I paid a visit to the institution with the purpose of ascertaining, in a general way, to what extent the scientific spirit enters into the manufacturing and recommending of the pharmaceutical products used by the medical profession. I was informed that about twenty pharmaceutically educated chemists, with university training, are constantly endeavoring to invent remedies and to create them synthetically. The results of their efforts are laid before an authority, a medical man. I am told, who was formerly professor of pharmacology at the universities of

Bonn and Goettingen. He is assisted by two pharmacologists and by a bacteriologist. The latter is also an analytical chemist. These gentlemen try the product on the animal. Then it is tried in the polyclinics of the plants, of which one exists in Elberfeld and one in Lever-Kusen. The two plants of which the pharmaceutical department, of course, forms only a part, employ about seven thousand people. Five physicians are employed in the clinics. These clinics and the obstetrical department, I may mention, form only a part of the very extensive and elaborate system of charitable and benevolent institutions which have been created and are maintained by the company for the welfare of their employes. After the preparation has stood the test so far, it is submitted to hospitals, preferably to university hospitals, or to specialists of renown, through the scientifically trained representatives who number about fourteen. The incoming reports are then compared with each other and only if they are favorable is the product placed on the market and manufactured. This process, I am told, takes from one to four years. Each year one or two new preparations may thus be turned out of the many hundred chemical products which are submitted to the pharmacological laboratory. This year, not a single new preparation has so far been placed on the market. The institution claims to possess the most valuable chemical library in the world. It has been fortunate to acquire, for a comparatively small sum of money, the library of the deceased famous chemist Kékulé. In the reading rooms of the library about 350 medical and pharmaceutical periodicals are reported to be on file. The institutions for the welfare of the employes deserve especial consideration, but time and space forbid to describe them more fully.

EMIL AMBERG, M. D.

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## News

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Dr. and Mrs. H. R. Varney, of Detroit, have returned from a trip abroad of over two months.

Dr. R. Adlington Newman, of Detroit, is traveling in Europe.

Dr. Charles W. Niles, for many years of the Calumet and Hecla Hospital staff, has submitted his resignation, to take effect shortly.

Dr. and Mrs. H. W. Longyear, of Detroit, are traveling in Europe, where they will join Dr. and Mrs. Theo. A. McGraw, Jr.

Dr. E. R. Marshall, of Clarksville, Tenn., has succeeded Dr. R. A. C. Wollenberg in Detroit as physician in the Marine Hospital and Immigration Service. The latter has been transferred to Ellis Island, N. Y.

Dr. S. C. Moore, of Cadillac, had three ribs broken in a runaway accident on August 3rd.

The Kalamazoo Hospital has been relieved of a burdensome and long-standing debt by the work of a committee who have solicited sufficient funds to cancel the debt. A new organization is contemplated.

The Lapeer County Medical Society held their midsummer meeting at Lake Pleasant early in July, accompanied by their families. Papers were read by Dr. A. P. Ohlmacher of Detroit and Dr. H. E. Randall of Lapeer.

Dr. M. A. Fechheimer, of Detroit, has returned from a years study and travel in Europe.

Dr. D. L. Parker, of Detroit, has returned from a trip to the Pacific Coast and Alaska.

Calhoun County recently secured a conviction under the Medical Practice Act which may serve as a wholesome precedent. Judson F. Bosworth, of Oswego, N. Y., pleaded guilty in July of practicing medicine without a license, under complaint of Dr. J. C. Brown, and was fined \$100 and costs.

Dr. Leartus Connor, of Detroit, has the sympathy of the Michigan profession in the death of his wife, which occurred suddenly on July 21.

The report comes from Laingsburg that Dr. D. G. Austin, who sold his practice in that place to Dr. George Robb, of Flushing, under agreement to cease practice there, has been enjoined from practice on complaint of Dr. Robb.

Dr. E. R. Johnson, of the staff of Oak Grove Hospital, Flint, has resigned, and will pursue medical studies abroad.

Dr. Frank N. Martin, St. Joseph, has gone abroad to study in Edinburgh and Vienna.

There have been 1870 cases of small-pox in the U. S. during the last seven months, with only four deaths.

Plans have been accepted for a new medical building at McGill University, to cost a half million dollars.



The efficiency of medical education has been enhanced during the past year by several changes in medical schools, viz: The Kentucky University Medical Department has merged with the University of Louisville; the Ohio Medical University and the Starling Medical College have merged at Columbus, taking the name of the Starling-Ohio Medical College; the Barnes Medical College of St. Louis has transferred its entire property to the University of Missouri; the Medical College of Alabama has become the Medical Department of the University of Alabama; the Denver Homoeopathic College has become the College of Medicine of Westminster University; Milwaukee Medical College is now the Medical Department of Marquette University.

Two medical colleges have been closed during the past year, the Coalifornia Medical College (Eclectic), San Francisco, and the Grand Rapids Medical College.

In the United States there is now one physician to every 636 persons, exclusive of osteopaths, neuropaths, and other irregulars. The District of Columbia has the smallest number to each doctor, viz: 258; and South Carolina the largest number, 1,346. Michigan is crowded beyond the average, with one to every 592.

Frank A. Boet, M. D., and Miss Mabelle H. Thomas, both of Grand Rapids, were married on June 29.

Dr. A. L. Laing, of Rapid River, president of the Delta County Medical Society, recently submitted to an operation at Rochester, Minn., from which he made an excellent recovery.

Dr. F. Summerbell has located in Escanaba.

Dr. James Mitchell, recently of Gladstone, has removed to Northwestern Canada.

Dr. A. H. Miller has removed from Sault Ste. Marie to Gladstone.

Dr. James Lawson Walsh has removed from Caseville to Bay City.

Dr. John S. Ingram, of Grand Rapids, a former practitioner in Bailey, but since retired, died at his home on August 3.

Dr. James F. Canavan, of Traverse City, first assistant physician on the staff of the Northern Michigan Asylum, died of appendicitis on July 25, aged 31.

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**The Status of the Child.**—J. R. SNYDER, Birmingham, Ala., in his chairman's address before the Section on Diseases of Children, at the recent session of the American Medical Association (*Journal A. M. A.*, Aug. 3), holds that certain changes in our ways of living are called for by the degenerative tendencies now existing. The disinclination to maternity in certain classes, is, he thinks, threatening the national welfare. In our efforts to check infant mortality we do not start far enough back—we should educate the potential mothers. Divorce and excessive luxury are also evils to be fought and ones that directly affect to its disadvantage the growing child. The menacing member of society does not always come from the ranks of the poor in this country, the bad citizen is sometimes made from the pampered child of wealth. Thoughtlessness in the care of the child is not restricted to any one class, and Snyder illustrates this by mentioning certain demoralizing associations to which precocious children are subjected in certain occupations in which they are permitted to engage by their parents, and certain bad habits they are allowed to acquire. This is apart from the child-labor evil in factories. He also mentions the evils of much of the current news literature to which the children, as well as the older members of society, are exposed. He speaks hopefully, however, of the efforts of reformers and philanthropists at present and appeals to the medical profession to work for the same ends in their dealings with the parents of the future citizens of the republic.

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## Deaths

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Dr. M. M. Swarthout, of White Cloud, formerly of Grand Rapids, committed suicide at his home on July 18, by shooting himself three times, aged 44.

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In retention of urine in hysterical subjects the use of the catheter should be avoided whenever possible. Patients of this class have so strong a desire for being noticed and sympathized with that when once catheterized they will ask for its repetition. Placing them in a hot bath and ignoring the urinary condition, or diverting their minds from it, will generally relieve the retention without the need of a catheter.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Observations on Sodium Chloride Metabolism.**—BITTORF AND JOCHMANN report the following conclusions:

At the height of pneumonia, increased salt ingestion causes no increase of excretion. The cause of retention does not lie in water retention, but in the properties of the tissues and the pneumonic exudate. In inflammatory exudates, the chlorine excretion may be normal and increased salt ingestion may cause diuresis rather than retention. Exploratory puncture helps excretion; diuretic works only for water elimination. In heart lesions, the excretion of water and salt depends on the circulation. Administration of salt does not necessarily lead to water retention, but often to diuresis.

The chlorin content of non-nephritic exudates and transudates is higher than in the edema of nephritic subjects. The stagnant kidney is able to take care of a large amount of salt. Nephritis with cardiac insufficiency behaves like uncompensated heart disease. In other kidney lesions, the excretion varies, but is usually good, and independent of water elimination. In acute nephritis with edema, administration of salt led to increased water and salt elimination. This patient previous to the appearance of edema had diminished salt excretion with good water elimination. The chlorine elimination is no indication of the nature or gravity of the kidney lesion. The authors do not believe primary salt retention to be the cause of edema, but consider it rather the result of changes in the vessels.

They had no unfavorable results from salt administration.

So far as their observations go, they find little room for the modern use of salt and poor diet.—*Deut. Arch. f. klin. Med.* vol. 8, p. 485.

**Persistence and Hypertrophy of the Thymus in Basedow's Disease.**—CIERKE has found on section in two cases of Basedow's disease, a decided hypertrophy of the thymus. One of the cases died immediately after the operation. Thorbecke's statistics show a very high operative mortality in cases with persistent thymus. The reason for this is not clear, but there are reasons for supposing an antagonism between the secretions of the thymus and the thyroid, and the possibility of thymus intoxication after the removal of the thyroid. GIERKE suggests that some

of these unfavorable results might be avoided by percussion and transillumination of the thymus region before operation.—*Munich. med. Woch.*, 1907, No. 16.

**Glycosuria in Pancreatic Syphilis.**—STEIN reports a case of severe diabetes in a 47 year old woman, with excretion of diacetic acid and acetone. On section, at the site of Vater's ampulla a sort of crater was found, of 1 cm. diameter, which led to a pocket running through the whole pancreas, and corresponding to the duct. Its wall was formed of necrotic tissue and its lumen filled with broken down cell masses and blood coagula. The surrounding pancreas was sclerosed. Microscopically were observed poor staining of the nuclei in the neighborhood of the necroses and a typical endarteritis. Liver and kidneys showed characteristic syphilitic changes and the stomach an ulcer which was not surely syphilitic.—*Jour. Med. de Brux.*, 1907, No. 12.

**Secretin Treatment of Diabetes.**—FOSTER reports five experiments in the treatment of diabetes with secretin, in all of which his results were negative. He was unable to confirm Moore's observation of diminished sugar excretion under this treatment. He cites also the work of Bainbridge and Beddard, who found no alteration in sugar excretion after the administration of secretin by the mouth.—*Jour. Biol. Chem.* 1907, No. 2.

**Phosphorous in Pediatric Practice.**—MANCHOFF endeavored to find a substitute for the ordinary phosphorus-cod liver oil preparation which should keep better and involve less risk of poisoning. After various experiments he settled on hemp seed, which is very rich in organically combined phosphorus. He uses a meal from which the oil has been removed. From this, he makes a soup, using 1 l. water to 100 g. meal, heating without boiling until the water has evaporated to 250 c. c., and straining. The resulting soup is slightly acid, and pleasant to the taste: 30-50 c. c. of it are added to each bottle. He has used it with 101 children, and reports excellent results in atrophy, rickets, and the spasmodic diathesis.—*Munich. med. Woch.* 1907, No. 12.



## SURGERY

Conducted by

MAX BALLIN, M. D.

**Intussusception.**—From this paper one may gather some bedside suggestions that bear directly on the treatment of acute intussusception. Intussusception is another name of internal strangulated hernia. The symptoms, except the tumor, are in almost all cases evident and striking even to the layman, and the diagnosis is therefore comparatively easy to the medical observer. Where the tumor is not easily felt, we fail in our whole duty to the patient if we do not employ a general anaesthetic for diagnosis, instead of waiting to recognize the tumor later without it. Treatment ought to be surgical and practiced not only within the first twenty-four hours, but within the last twelve hours, like the treatment of any other form of strangulated hernia, remembering that in those cases where gangrene occurs the process may be more rapid than other forms of hernia. Laparotomy and manual reduction offer the patient the best chance of recovery. Mechanical agents in reduction, short of direct manipulation,—such as air, gas, water, oil, etc., while they are free from the danger of atmosphere exposure and handling of the gut, are objectionable, for the reason that we do not know, without laparotomy, the condition of the intestine to be reduced, nor whether, except by waiting, it has been reduced. While young infants operated on for the relief of invagination show a relatively high mortality, yet with very early operative interference we may expect a low mortality—at present 12.5 per cent. JOHN D. RUSHMORE, *Annals of Surgery*, Aug., 1907.

**Eserin Salicylate as a Prophylactic Against Atony of the Bowels.**—VINEBERG calls attention to the familiar bug-bear of the surgeon in laparotomy cases—namely, distention of the bowels and no passage of feces. The use of rubber gloves, gentleness in manipulation, aseptic suture material, and of warm moist pads to the exposed intestines, help to diminish the likelihood of ileus, but even then it sometimes occurs. Experiments have shown that no small part of the intestinal gases is normally absorbed into the circulation and thrown off in expired air; any

condition which limits this absorption, such as collapse, fevers, and prolonged narcosis, will therefore cause meteorism. Furthermore it has been shown that ligation of the mesentery produces a more rapid and severe meteorism than ligation of the gut itself, proving that the nerve and blood supply are the important factors. It follows from this that one must be particularly careful to respect the mesentery. Bearing this in mind, the author found that in cases of left pyosalpinx, which formerly had given worse results than right pyosalpinx, he could improve his results by taking great pains not to traumatize the meso-sigmoid.

Inasmuch as narcosis alone induces meteorism, it is probable that it occurs to a greater or less extent in every laparotomy for the three or four hours following operation, and it is no wonder that it occurs in severer forms when any of the rules of careful technic is violated. In 1901 V. Noorden used eserine (physostigmin) for meteorism and since then many observers have made favorable comment on its use. Research work has shown that it exerts a stimulating effect on the muscular coats of the intestines, increasing peristalsis. Its effects are detected even when the medulla, vagus, and sympathetic and celiac ganglia are excluded.

VINEBERG has inaugurated a custom in his hospital practice of giving eserine in abdominal cases just as the patient is coming out of the anesthetic. In 15 out of 37 cases there was no discomfort from flatus, which is an excellent showing, in view of the fact that he does not administer a cathartic till the fourth day. It is also superior to the record of 55 cases in which eserine was not given. He has not observed any harmful effect from eserine, even in cases of traumatized gut, which certain observers have claimed is a contraindication. It might readily do harm, however, if it were given where meteorism is already present, especially when due to mechanical obstruction or peritonitis. The author believes the drug is well worth trying, especially as it does no injury except in the instances where it obviously should not be used.—*Surgery, Gynecology, and Obstetrics*, Aug., 1907.



## GYNECOLOGY AND OBSTETRICS.

Conducted by

B. R. SCHENCK, M. D.

**Scopolamine-Morphine Anesthesia in Obstetrics.**—NEWELL recently reported 41 cases of this anesthesia in obstetrics and drew certain conclusions therefrom. He now modifies these conclusions after a further experience of 122 cases, treated in private practice and at the Boston Lying-in Hospital.

A solution of 1-10 gr. of Merck's scopolamine hydrobromide, and  $2\frac{1}{2}$  grs. of sulphate of morphia was prepared at least every fourth day, oftener if a sufficient number of patients were treated to render it necessary. This solution was used in the following way: As soon as labor became active, practically when contractions occurred at 5 minute intervals, an initial dose, containing 1-150 gr. of scopolamine and 1-6 gr. of morphine was given hypodermically. This was repeated at the end of from 1 to 2 hours, unless the patient showed marked reaction to the initial dose. If such was the case, the dose was not repeated until the effects of the drug began to disappear. In no case was it repeated after the cervix became two-thirds dilated.

The following conclusions are deduced:

1. The great majority of the patients reacted markedly to the dose described, practically the only failures being in patients where an old solution, 7-8 days old, was used to test its value.
2. The pain of labor was markedly reduced, in some cases so much that the labor was called painless by the patient.
3. The recollection of pain endured was almost abolished.
4. Labor seems to have been definitely shortened, as well as made easier.
5. The necessity for operative interference has been distinctly reduced in this series of cases, as compared with the average number of operative deliveries in a similar number of patients not so treated.
6. No tendency to hemorrhage has been noted in any of the cases, and only rarely has undue relaxation of the uterus been observed.
7. No bad effects of any sort have been noted, whether in the heart, respiration, or pulse.

In other words we have a distinctly favorable effect in the great majority of cases on whom the drug has been employed, and no bad effects noted. —*Surgery, Gynecology and Obstetrics*, Aug. 1907.

**Bimanual Vibratory Palpation for Outlining Tumors.**—KELLY describes this method of accurately outlining kidney or pelvic tumors thus: "In the case of a pelvic tumor, the finger in the vagina rests lightly on the cervix if it is uterine,

or on its lower pole if it is ovarian. Then the upper hand plays lightly over the abdominal wall, over the tumor, touching first its central portions and then advancing radially out toward its periphery, in all directions, communicating a series of very rapid light vertical succussion movements. These little vibrating thrills are felt very distinctly by the finger in the vagina as long as the tumor is played on, and are lost as soon as the vibration fall on the intestines or fat abdominal wall just beyond the edge of the growth. The actual to and fro tremulous movement with the fingers need not extend over one centimeter. In this way an accurate outline of the tumor and its irregularities can be obtained.—*J. A. M. A.*, June 1, 1907.

**Report of a Case of Inoperable Round-celled Sarcoma of the Ovary**—COE and COLEY report a case of inoperable sarcoma of the ovary that has been successfully treated by mixed toxins of erysipelas and *Bacillus prodigiosus*, combined with later operation. In November, 1904, examination revealed a large, immovable mass filling the pelvis. The uterus was crowded down almost to the external genitals, and there was tenderness of the lower abdomen and rigidity of the abdominal muscles. Operation showed a bluish-white mass, nodular, and adherent almost all over. Enormous blood-vessels covered the back of it springing from the posterior brim of the pelvis. The abdomen was closed with a diagnosis of inoperable sarcoma of the pelvis, and the patient was sent home to die. Examination of a small portion removed showed perithelial hemangiosarcoma. Three months later the treatment by mixed toxins was begun. The first dose was one-half cubic millimeter, and it was repeated three or four times a week, in increasing doses up to the production of moderate fever. Forty-seven injections were given in all. Twenty-two exposures to the x-ray for ten minutes each were made. There was a very slow diminution in the size of the tumor and general health did not improve. In June operation was done, and a tumor the size of a child's head removed that was pedunculated and almost free from adhesions, originating from the right ovary. There were no metastases. Recovery was uninterrupted and six months later the patient conceived and later gave birth to a healthy child. Later in 1907 she died of pneumonia. The examination of the tumor showed that it was much degenerated within and its structure not well defined; it was reported as probable sarcoma, endothelioma, or carcinoma.—*Medical Record*, March 16, 1907.

## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**Atropin and Ileus**—Schultz gives the full histories of 35 cases of ileus that have come under his observation. All had symptoms of acute obstruction and had not been under previous treatment. The author gave in each adult case 2 milligrams of atropine subcutaneously. This was preceded by a small dose of morphine, 1.5 milligrams to control the cerebral effect of the atropine. In a short time a second dose of atropine was administered. If there was no movement of the bowels at the end of from 24 to 36 hours, depending on the condition of the patient, the frequency of his pulse, and the blood pressure, he was prepared for operation immediately.

In neglected cases where fecal vomiting and signs of peritonitis have manifested themselves, the writer injects a full dose of atropine. This improves the circulation, increases peristalsis, and oftentimes allays the persistent vomiting.

Symptoms of poisoning likely to arise from these large doses (mydriasis, dry-throat, muscular twitchings, delirium) have not given rise to any alarm in his cases and have always been sufficiently counteracted by small injections of morphine. (*Mitt. aus den gren. der med. und chir.* Bd. xvll., Hefte 5.)

**Mercuric Values in the Treatment of Syphilis.**—With the numerous methods of administering mercury in the treatment of syphilis, a uniformity in dosage is impossible. Many of the symptoms arising from its excessive use could be obviated if the practitioner could learn the exact amounts necessary to produce desired effects. BERNART has carried on some valuable experiments in this line. With the growing adoption of the injection methods, exact dosage has become possible. Taking this as a basis of comparison, he treated a large series of cases by the (1) intravenous, (2) intramuscular, (3) inunction, and (4) internal methods. Intravenously,  $\frac{1}{4}$  grain of corrosive mercuric chlorid was the 'average' daily injection. Intramuscularly, 1.5 grain of corrosive mercuric chloride, or 2.5 grain of mercuric succinimide were given. By inunction, 68 grains was the average daily dose. Internally,  $\frac{1}{2}$  grain of the yellow iodide or  $\frac{1}{4}$  grain of the red iodide of mercury or  $\frac{1}{2}$  grain of corrosive mercuric chloride were administered. Parallel results were obtained in 18 days in the first class; in 26 days in the second class; in 34 days in the third class; and in 61 days in the

fourth class. Knowing the mercuric value of each of the above preparations, it was easily shown that the intravenous class received 68 grains in all; the intramuscular class, 87 grains; the inunction class 27.504 grains; the internal class 606 grains.

The author draws many conclusions from these trials. Evidently the intravenous method is the surest and quickest. The intramuscular works slower and requires more, probably because the mercury is not quickly and not entirely absorbed from the muscles. The fact plainly shows how small an amount is absorbed by inunction, and also how long it requires a patient to receive the benefit following internal administration.—(*N. Y. Med. Jour.*, Aug. 10, 1907.)

**Treatment of Diabetes Mellitus by Drugs.**

PARSONS advises the employment of drugs in diabetes, (1) to control glycosuria; (2) to avert or remove coma; (3) to relieve symptoms and complications. They should only be given when the patient is on a full and controllable diet.

Opium and its alkaloids have been used for a long time. They are supposed to act either by sedative influence on the nervous system or their power of diminishing the activity of metabolism. They act best when the patient is on a restricted carbohydrate diet. The effects are usually short lived. Probably the best and safest drug in the series to use is codein which can be given in very large doses without producing serious symptoms.

Bromide of potassium is frequently used in highly neurotic individuals. Fifteen grains three times daily is sufficient.

Elbstein is given credit for the introduction of the salicylic acid group as an antiglycosuric. Aspirin is the most commonly used preparation of the series. This is a very useful drug and some excellent results have been reported. From 15 to 60 grains are given daily. Nephritis is the only contraindication.

The author does not credit antipyrin, which is given in doses of 15 grains daily, with much value.

Uranium nitrate given in from 12 to 15 grains three times a day after eating has proven to be of value in the hands of Duncan and West. The author has never seen beneficial results following its use. (*The Practitioner*, London, July, 1907.) (The treatment of coma and of symptoms and complications will be reviewed later.)



## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Hydrocephalus and Meningitis.**—KOPLIK interestingly and conservatively discusses hydrocephalus as complicating or occurring with acute cerebro-spinal fever, believing that this is a condition of prime clinical importance and one which not infrequently threatens serious damage to delicate tissues, and even menaces life itself.

With the sudden development of fever in a patient who has been apparently doing well, there may be stupor, headache, vomiting, and percussion of the skull may reveal a tympanitic note indicating dilatation of the ventricles and the accumulation of fluid within, and this method of percussion of skull enables an early diagnosis. This, of course, is in adults and children in whom the sutures have ossified.

As to therapy, he considers merely the practice of lumbar puncture, and conservatively warns against its indiscriminate application in cerebro-spinal meningitis. He says, too, that resort should not be had to lumbar puncture for the evacuation of purulent or semi-purulent fluid from the cerebro-spinal spaces, nor for headache, fever, or unconsciousness, and only in fixed cases for diagnostic purposes.

KOPLIK makes use of lumbar puncture only on the principle that the chief danger here is in damage from the distention of the ventricles and the pressure of an infected fluid over a large surface of delicate tissues. While he has seen many cases of meningitis recover under usual methods of treatment and without lumbar puncture, yet he has seen the most happy or decided effects follow its application in cases when conditions made it distinctly indicated for the relief of pressure.—*Am. Jour. of Med. Sc.*, April, 1907.

**Tropical Neurasthenia.**—This has been observed with especial frequency in Americans who have gone to the Philippines and particularly in those sufficiently foolhardy to disregard the wisdom of local customs and who pursue work without proper precautions and who unwisely attempt to follow in the tropics the strenuous life to which they have been wonted in a cooler climate.

Of especial interest is the theory, which has been treated in detail by Woodruff, that this variety of neurasthenia is quite largely due to the effect of the active (ultra-violet or photographic) rays which are invisible and of very short length. These may penetrate the skin, and exert chemical effect upon the tissues. The native protects himself from the sun, works fewer hours, and sleeps from 12 to 3 in the afternoon, a wise precaution which the rash American is too prone to neglect.

Other causes of tropical neurasthenia are enumerated as: (a) manner living; (b) effects of certain infectious diseases, e. g., dengue and dysen-

tery; (c) effect of excessive use of alcohol; (d) effect of continuous and excessive moist heat.

Apropos of the actinic theory as to the etiology, the attempt has been made to prove that "skin pigmentation" in man was evolved for the purpose of excluding the dangerous actinic or short rays of light which destroy living protoplasm. Brunette types have been observed to endure better in the Philippines than the blond types.

Vertigo, faintness, indication of anæmic conditions of the central nervous system, are quite prevalent symptoms in this form of neurasthenia.

As a matter of prophylaxis, certain rules of tropical hygiene should be studied and closely adhered to and these may be embraced under these heads: 1. The avoidance of the sun's direct rays. 2. The shunning of excessive heat. 3. Guarding against excessive labor and long hours, as well as careful attention to appropriate diet.—LOUIS H. FALES, M. D., in *Amer. Jour. Med. Sci.*, April.

**The Cerebro-spinal Fluid.**—Lumbar puncture, first performed by Quinke, over fifteen years ago, has pointed the pathway to much new knowledge, the limits of which are not yet in sight. This fluid's normal pressure has been determined, likewise its protein constituents and their variation in disease,—various cell formulæ held to be indicative of special meningeal conditions, the presence of cholin in certain degenerative diseases, notably paresis,—these are only a few of the things determined in relation to the fluid. This paper covers examination of the fluid in the following groups of cases.

1. Cases of diseases other than nervous.
2. Cases of nervous diseases showing no abnormality of the fluid.
3. Cases of tuberculous meningitis.
4. Cases of "purulent meningitis" due to infection with the streptococcus, diplococcus pneumoniae, or micrococcus meningitidis.
5. Cases without "purulent" or tuberculous meningitis, but with abnormality of the cerebro-spinal fluid.

These studies have led to the following conclusions: 1. That these methods offer means for more careful clinical study; that pressure, protein content, and number and kind of cells per c.mm. should be determined. 2. That by these means, a specimen which under ordinary examination appears normal may in this way be found pathological. 3. That normal fluids differ but little in quantitative cell-content. 4. That except along broadest lines, there is nothing specific in the permutations of protein, pressure and cells. 5. That the "clear elements," "cellular degeneration," "pseudo-endothelial cells," often noted are definitely proved to be degenerate cells.—F. PEYTON RONS, *Amer. Jour. of Med. Sci.*, April, 1906.



## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**The Removal of Adenoid Vegetations through the Nasal Passages by a New Method.**—FREER describes his method of removing adenoids through the nose. General anesthesia, combined with local cocaine anesthesia, is employed. The child is placed on its left side, with its left arm behind it, and face brought clear to the edge of the table, and inclined downward, so that the blood can run out of the mouth and nose. The finger is then inserted into the naso-pharynx, while straight forceps are introduced through the nose. The index finger guides as much of the adenoids into the forceps as the latter can hold; in this manner the adenoid tissue in the Fossa of Rosenmueller on the posterior pharyngeal wall, highest part of the pharyngeal vault and posterior nares, is all readily reached and removed, which it not always possible with the curette.

A further advantage of this method is its directness, a straight instrument being used without curves or angles to confuse the muscular sense, and which can therefore be easily guided with exactness. The index finger in the naso-pharynx controls every step of the operation by the sense of touch and pushes the adenoids towards the operating instrument. Absolutely complete removal of the adenoids is the result.—*Annals of Otolaryngology and Rhinology*, Dec., 1906.

**Trypsin Treatment of a Case of Malignant Disease, Involving the Left Tonsil, Base of Tongue, and Epiglottis.**—CAMPBELL reports a case diagnosed clinically as an inoperable carcinoma of the base of the tongue, the tonsil, and the epiglottis, in a man 56 years old, which he treated with injections of trypsin. Swallowing the smallest amount of fluid was attended with much difficulty, speech was thick and indistinct, and pain was constant. Potassium iodide and incisions were of no avail. 5 minims of Fairchild Bros. & Foster's injectio trypsin, 3% solution, diluted with 10 minims sterilized water, were injected over the enlarged, adherent submaxillary gland, and at intervals of three days 10 minims in the same region. After the fourth injection the swollen submaxillary glands decreased in size, and swallowing became more comfortable. The dose was increased to 20 minims, diluted with 2 volumes of distilled water, and the injection made under the skin of the buttocks, each alternate day. At the time of the

report the infiltration in the tongue, tonsil, and epiglottis, and submaxillary region had greatly decreased. No opiate was required for the pain, and the general condition was greatly improved, and the patient believed himself entirely cured.—*Annals of Otolaryngology and Rhinology*, March, 1907.

**On the Permanence of Improvement in the Shape of the Nose, Obtained by the Subcutaneous Injection of Hard Paraffin.**—After an experience of five years, DOWNIE states that the paraffin is in no way affected when the patient is exposed to a high temperature, either from residence in a tropical climate, or from exposure to great heat, as is necessary in certain occupations. The improvement is also permanent, as the paraffin remains in situ indefinitely.—*Annals of Otolaryngology, Rhinology, Laryngology*, Dec., 1907.

**Concerning the Treatment of Papillomata of the Larynx.**—KOELLREUTHER believes with Nemas-Ofenpest, that the curing of papillomata of the larynx is, perhaps, independent of the manner of operation, and to a certain extent also the thoroughness with which the operation is done, but that it is dependent upon the spontaneous ending of their tendency to recur. Against this tendency, the author warmly advocates the internal use of arsenic, in the form of Fowler's solution. He reports four cases treated surgically and internally in this manner in which the tendency to recurrence was previously very marked, and of several years duration, but under treatment, as above outlined, there were no recurrences.—*Monat. für Ohrenheilkunde*, XLI., II.

**Favorable Effects of Trypsin in a Case of Laryngeal Epithelioma.**—DUPUY treated a case of intrinsic laryngeal carcinoma, a recurrence after the removal of the primary growth by thyrotomy, with injections of trypsin, and the internal use of Holadin (extract of pancreas) alternately. Sixteen days after the first injection, the growth appeared pale and harder and had diminished one-half in size. Forty-one days after treatment the tumor had still further decreased, so that it remained sub-glottic. The decrease in size continued until forty-five days later, when it was no longer visible. There was no sign of recurrence two months later, and the general condition was excellent.—*The Laryngoscope*, May, 1907.

## GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

**The Value of System in Genito-Urinary Work.**—MILLER says that systematic work is quite as much a necessity in professional life as in business life. This is especially true in genito-urinary work, in which diagnosis of the specific condition is often made only after weeks of unnecessary suffering on the part of the patient and loss of valuable time on the part of the attendant. Delay is unfair to the patient; at the same time it is inconsistent with conscientious effort in his physician.

Unless the condition is an absolutely clear one, on observation, the following plan should be followed:

I. Examination of external parts for phimosis, balanitis, venereal warts, arrested development, infection from syphilis or chancroidal poison, herpes, and finally the size of the meatus.

II. Examination of the urine; first, the two glass test for macroscopic observation, then chemical tests and finally microscopic examination.

III. Digital examination of the prostate, testicles, and seminal vesicles; then microscopic observation of their expressed contents.

IV. Instrumental examination of the urethra (when not contra-indicated by acute inflammation) for stricture; then instrumentation for vesical calculus and catheterization for residual urine.

V. Cystoscopy, for the purpose of determining intravesical conditions other than calculus; and finally ureteral catheterization.

This plan, which, with the exception of the employment of the cystoscope, is possible for any practitioner to carry out, will, if consistently followed, quickly direct the attendant to a proper diagnosis and the patient to a reasonably prompt relief.—*Am. Journ. of Derm. & Gen. Ur. Dis.*, May, '07.

**Iodine. Its Employment in Genito-urinary Diseases.**—The author reports most satisfactory

results from the use of an aqueous solution of iodine and vitellin silver (iodine, 1 per cent, vitellin silver, 6 per cent) in all kinds of urethral infections, as employed in the genito-urinary department of the Jefferson Hospital, Philadelphia. Care must be taken in compounding. Iodine crystals and potassium iodide in equal quantities (the potassium iodide being used chiefly to insure solubility) are made in watery solution, the silver salt is then added and the water is then added to make a proper volume or solution. Prepared in this way the fluid is said to be rendered absolutely non-irritant to the tissues. It is employed in cases of urethritis of recent origin as well as in those of long standing. It is administered not as an irrigant but as an injection in such quantity as to fill the urethra and be retained in the canal for 5 minutes. It is used twice daily until the infection has disappeared (only 4 or 5 days are said to be necessary in many cases). It is then supplanted by a simple astringent injection. The chief claim which the solution can make to unusual consideration lies in the fact that in the strength in which it is strongly germicidal, it is wholly harmless in its effect upon mucous surfaces.—C. S. HIRSH, *Amer. Jour. Derm. and Genito-urinary Diseases*.

**Sterility in the Male; Its Causes and Surgical Treatment.**—FRANCIS R. HAGNER, of Washington, says that the male is frequently at fault in childless families. The most frequent cause of sterility in the male is epididymitis. There may be aspermia, azoospermia, oligospermia, motionless spermatozoa, or obstruction of the passage for the semen. Epididymitis and operations for stricture may be responsible for the last-mentioned condition. Next to gonorrheal infection, masturbation is the most frequent cause of sterility. Bi-lateral syphilitic and tuberculous disease may be responsible for it. X-ray workers are temporarily sterile. The author describes an operation for closure of the globus minor by making an anastomosis between the globus major and the vas deferens, which has been successfully performed by him.—*Medical Record*, August 10, 1907.



## ORTHOPEDIC SURGERY

Conducted by

WILLIAM E. BLODGETT, M. D.

**Tuberculous Disease of the Spine in Children.**—In a study based on 28 cases of Pott's disease, treated at the Victoria Hospital for Sick Children, Hull, OLIVE ELGOOD writes as follows with reference to vaccine treatment.

"Sir Alfred Wright's method of the determination of opsonic indices has safeguarded a treatment which proves itself of great value in carefully selected cases of this disease, although it should be understood that in nearly all cases its use should be an adjunct to one of the other forms of treatment described. In every case, rest is essential, and it is, in many cases, wise to combine mild surgical measures with the injections of tuberculin.

"Thus, where sinuses are present, it is reasonable to suppose that healing will be facilitated by the removal of the lining membrane by curetting, while, on the other hand, it is obviously unreasonable to expect that tuberculin can effect the absorption of a portion of necrosed bone, which in many cases is the cause of the persistence of a sinus. Again, it frequently happens that in a chronic tubercular sinus there is a mixed infection, so that the injection of tuberculin alone is insufficient. Therefore it is best, where a sinus fails to respond to tubercular treatment, and where irritation by dead bone is not suspected, to cultivate a growth from the pus and if possible to make a vaccine from the culture obtained and to inject it concomitantly with the tuberculin."

"Out of seven cases treated by tuberculin inoculation, I have found complete satisfaction with the healing of long standing sinuses only in two, in a third the general condition showed a marked improvement, though the local condition remained unchanged, while in the other four cases no effect from the treatment was noticed."

"It is certain that there are few treatments in medical science that require so much individual selection of cases if satisfactory statistics are to be obtained, and it appears to me that the surgeon who relies solely on his opsonic chart for indications to inoculate will certainly meet with disappointment. Thus in cases where the cause of a persistent sinus is the presence of a sequestrum, it must be unreasonable to suppose that

tuberculin can effect its cure. On the other hand, if the sequestrum be surgically removed, the tuberculin will most probably be a most valuable adjunct towards the final healing of the sinus."

"Again, the system of dosage entirely from the opsonic curves, in any case, does not always seem justified by results. In illustration, I quote two charts, one of which showed a satisfactory curve under treatment, but the patient steadily declined in health; the other received doses according to her local condition, i. e., when the discharge from the sinus began to increase slightly, the dose of 1/1000 K. T. R. was repeated, irrespective of the opsonic index. This latter case was the one brilliant cure under tuberculin of my series, the child having had six months' treatment of mild surgical measures and immobilization without improvement while in two months of tuberculin treatment all the sinuses healed and the condition apparently cured."

"I have neither seen nor read of any case in which harm has been done by inoculations of the small doses, which produce immunizing responses without constitutional disturbance, and therefore, although it is admittedly of limited use in bone troubles, there is no reason why it should not have an extensive trial in all forms of this disease. It is questionable, however, whether the amount of labor consequent on a systematic examination of the opsonic index meets with sufficient reward.

"Besides the charts noted, I have seen a fairly large variety of charts of cases of various forms of tuberculosis, and have frequently been struck by the loss of conformity between satisfactory clinical and pathological results."

"In conclusion, Elgood quotes the words of Watson Cheyne, "In joint and bone diseases, where no operation would formerly or now have been considered necessary, by all means add the use of tuberculin to other methods employed. But blindly to convert the practitioner into an immunisator, as Professor Wright puts it, is, I believe, a totally retrograde step."—*Brit. Jour. Children's Diseases*, June, 1907, IV., 6, pp. 229-253.



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## Original Articles

### FIVE CASES PRESENTING POINTS OF SPECIAL CLINICAL INTEREST\*

C. B. G. DE NANCREDE, M. D.

Ann Arbor

I am decidedly of the opinion that the usual method of reporting instances of rare conditions is a prejudicial one, in no way tending to render the rank and file of physicians any better diagnosticians, at present the crying need of the profession. Too often the reverse obtains, because the reporters describe how rarely, in their vast experience, still more in that of the profession at large, are such cases met with, ergo, the audience need not bother about such occurrences as they will probably never run across any such. On the other hand, certain common ailments are believed to be so well understood that, when these occur at an unusual age or under circumstances which appear to the superficial observer to preclude the possibility of the presence of such diseases, serious errors in diagnosis and treatment are made.

The first case I shall mention is one of fistula-in-ano in an infant, aged between seven and eight months. One portion of the profession still believes in the tuberculous origin of this disease, while the majority of the remainder have a hazy

notion that in some way, trauma of the mucous membrane, followed by ulceration with resultant peri-rectal abscess, is the usual cause of this condition. These notions comprise but a portion and probably the smaller portion of the truth, in many cases the process starting as a lymphatic infection, or possibly an infective thrombo-phlebitis of the ischio-rectal fossa, a denudation of the rectal coats by the pus, and a progress of the infection and the pus in the direction of least resistance, i. e., inwards, between the internal and external sphincters of the anus, guided thither by the fascia of the levator ani muscle. When a complete anal fistula results, the skin opening may possibly form first, but there is often evidence, when incising an ischio-rectal abscess, that a minute opening into the bowel (or at least a potential one) has preceded the advent of the pus beneath the thinned integument.

The impression that infants do not have tuberculosis of the anal region and being fed on liquids cannot have fish-bones or fragments of other bones, etc., in the rectum to produce trauma and ulceration of the mucous membrane, does not preclude lymphatic infection through

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temporary fissures of the anal mucocutaneous covering produced by costive movements, etc. (in my experience incontestibly the most common cause of the ischio rectal abscesses causative of anal fistulae), nor can these cases be treated otherwise than in the adult, i. e., detection of the opening into the bowel and slitting up the whole tract.

In the briefest form the history of the case mentioned is as follows: The patient is now thirteen months of age. About five months ago the patient had a severe attack of gastro-intestinal trouble with diarrhea which lasted four weeks. A swelling then appeared to the left of the rectum which so compressed the anus that the bowels could not be evacuated for 24 hours. At the end of this time, during an effort to empty the bowels, the swelling ruptured, discharging much pus and blood. The skin opening closed on several occasions, but opened again, giving vent to pus. Some form of operation was done in February, since which time the discharge has been much less. Examination under an anesthetic enabled the easy passage of the probe along the sinus into the rectum between the two sphincters. This tract was freely laid open and packing was introduced, healing promptly taking place.

The general belief that the symptoms, course, and diagnosis of deep-seated abscess, osteomyelitis and sarcoma are thoroughly understood, and that the differential diagnosis between these can be readily made, together with a misconception as to the prevalence, the symptoms, the course, the diagnosis and pathognomic symptoms of actinomycosis, frequently leads to both errors of diagnosis and failure in treatment. This disease is far more prevalent than is usually believed. The reason for its infrequent detection is due to the fact that the description in the books is such as to lead to the following misconceptions, viz.,

that it occurs chiefly, if not solely, among those engaged in agricultural pursuits and that it is quite usual to find that an animal suffering from "lumpy jaw" is, or has been, on the farm. Another error is that the discharge will invariably contain gritty, calcareous particles of sulphur yellow bodies, while as a matter of fact the so-called fishroe bodies (at least in this country) are far commoner than the other two forms of granules, and these are not easy of detection, while they are also absent for variable periods from the discharge. The description in the books still further leads astray by inducing the readers to believe that the ray-form of the fungus can be readily and easily detected in the discharges, whereas it may require prolonged and careful search, even after proper staining, to detect the filamentous form of the organism which branches at acute angles. Finally, recent investigations seem to go to prove that the idea commonly prevalent that the organism is introduced into the tissues from without is probably incorrect. It is taught that the organisms enter through a carious tooth, or through damages of the buccal or intestinal mucous membrane induced by foreign bodies from without, such as beards of grain or pieces of straw contaminated with the organism. This is probably a misrepresentation of the facts. The organism in the filamentous form has been probably shown to have its normal habitat in the buccal cavity, and there is ground for belief that the rôle played by pieces of straw and other vegetable materials is that simply of vulnerating objects providing an infection atrium in tissues of lowered resistance. The histories of the succeeding cases speak for themselves.

A school girl aged 17 entered the hospital January 12, 1907, stating that trouble had been noticed with an aching tooth in the left side of the lower jaw in September, 1906. In Janu-



ary, 1907, the tooth was extracted, was found to be healthy, and no disease was found in the alveolus. A dull pain at night was complained of.



large swelling of the cheek and temporal region commenced shortly after the tooth was extracted and has steadily and rapidly increased since that time. Occasional dull pain at night was complained of.



below the lower jaw upwards to the zygoma, and posteriorly bulging about one centimeter behind the ramus. By palpation no sharply defined tumor could be made out, the whole mass moving with the inferior maxilla when the patient opened or closed the mouth. The trouble evidently involved the pterygoid and masseter muscles—possibly the temporal; (this suspicion proved later to be correct). Opposite the last upper molar tooth there was a small opening in the mucous membrane, giving vent to pus. No fluctuation could be detected anywhere. By enlargement of this opening about a dram of pus was evacuated, but in a few days softening with fluctuation developed near the angle of the jaw; this ruptured, giving vent to a moderate amount of pus. Two months later a large fluctuating tumor appeared above the zygoma in the temporal fossa. Meanwhile the site of the softening areas near the angle of the jaw broke down extensively with undermined but elevated skin margins, now presenting the appearance of actinomycosis as pictured in most of the books, and shown in the illustration. On the first of April the extensive pus collection in the temporal fossa was opened, giving vent to a large quantity of pus, when the cavity was found continuous (after a little manipulation through the granulation tissue) with the openings in the cheek before mentioned. Search was made for actinomyces when the first abscess was opened, but it was only some ten days after the spontaneous openings were formed in the cheek that the characteristic fishroe bodies were detected, and then only in small numbers. The question of treatment will not be touched upon here, as the case is chiefly of interest from the diagnostic point of view. Let me now read the notes of a second antecedent case.

A patient, a male, age 41 years, entered the University Hospital, stating that about six months previous to his admission to the hospital he began to

notice a slowly increasing swelling located in the right inguinal region, which extended finally from the pubes to the anterior superior iliac spine. The patient had had three years ago a swelling in the left groin, which later giving vent to pus, soundly healed. About one month after the appearance of this last swelling a physician believed he detected an abscess and opened it, evacuating a blood-stained fluid but no pus. This wound has never healed, a considerable area of skin becoming ulcerated with undermined margins, and at many points from the deeper parts a thick, dirty pus mixed with fresh blood has exuded. The scrotum was riddled with openings from which a similar discharge came. Free incision with curetting of the spongy granulation tissue was done on more than one occasion by Dr. Darling, the last one revealing the fact that the bowel was involved, a fecal fistula being present. After repeated examinations of the discharge fishroe bodies were detected and proven by the microscope to be actinomyces bovis. When the patient was discharged from the hospital six months later the fistulæ had closed, and the disease seemed to have been recovered from.

That the usual confidently expressed professional opinion that an interval operation for appendicitis presents no dangers, if infection can be avoided, and that nothing but the establishment of the diagnosis is necessary before proceeding to operate, is contradicted by the following case. For some reason the patient concealed the facts, justifying himself by saying that no one had asked him if he was a bleeder. If the type-written directions for the examination of the patients in my service had been complied with, when securing the history of this patient, the question as to serious bleeding after slight injuries would have demonstrated the existence of hemophilia.

P. H. B. Male. Aged 39 years. Came to the University Hospital for an interval operation for appendicitis. The pa-

tient gave a history of one typical attack of appendicitis, having had generalized pain localizing in the right side, vomiting, fever, and a small mass in the right groin. The duration of the attack was about two weeks. The patient gave the following family *after* history. Patient's great-grandmother, grandmother and mother always had profuse bleeding at their menstrual periods and after confinements; they also bled profusely from any small cut. One sister of the patient's mother is also a bleeder. Patient has two sisters and one brother who show the same tendency to bleed. Patient has one daughter who is a bleeder and she has to be watched constantly, having nearly bled to death on several occasions from the nasal mucous membrane. The patient himself has all his life had profuse bleeding following any small cut or injury, several months ago nearly bleeding to death from an insignificant cut upon his foot. Patient states that he has not previously bled severely from tooth extractions.

Operation. The usual McBurney muscle-splitting operation for appendectomy was performed, the bleeding being only moderate from the parietes. The appendix was soon detected beneath the cecum where it was held by rather friable adhesions; these were separated and the appendix drawn into the wound; it was amputated and invaginated by a purse string suture and a small area of the cecum showing a tendency to bleed was also invaginated. The bowel was replaced, the abdomen being perfectly dry. The wound was closed in the usual manner with catgut, the skin with silkworm-gut and horse-hair sutures. Patient was put to bed.

Twelve hours later it was noticed that patient's pulse was somewhat rapid and weaker. The patient now complained of some abdominal pain. The pulse continued to rise in frequency and grew weaker. Examination of the dressings showed them to be moderately blood

soaked. The pulse rose to 170 sixteen hours after operation and the patient then presented all the signs of serious internal hemorrhage. The wound was at once reopened by my chief of clinic, Dr. Loree, and the abdominal cavity was found to contain many ounces of fluid blood and clots. These were removed as rapidly as possible, but no definite bleeding points could be found. Gauze packing was introduced into the wound at the site where the adhesions had been broken down to liberate the appendix, thinking that the ooze from this point seemed sufficient to account for most of the bleeding. Patient was transfused subcutaneously and intravenously and given saline enema per rectum; gelatine in normal salt solution and calcium lactate were exhibited both by the mouth and the rectum. After several hours of hard work the patient began to rally, the bleeding apparently subsided and the crisis was passed.

My fifth and last case presents an interesting example of a disease process finally stimulating to rapid growth normal tissue, abnormally located. Morgagni so long ago as 1740 first demonstrated the frequency with which adrenal tissue is misplaced. Although this abnormality is most common in the solar plexus near the supra-renal body, the kidney capsule and the long spermatic veins are also not unusual sites. According to Schmorl accessory adrenals are found in the neighborhood of the adrenals in 92 per cent of all autopsies. Rossa explains their occurrence in connection with the testicle by the intimate relation of the rudiments of the sexual glands and the adrenals, both arising from the Wolffian bodies.

J. M., an American, male, aged 31 years, entered the University Hospital on account of discharging sinuses in the scrotum and an urethral discharge. His family and previous history was negative. He denies having had any venereal disease. He was well until three years

ago, when there developed on the right side of the scrotum an abscess which broke and discharged for some weeks and then healed up. He had no further trouble until September, 1905, when he developed an urethral discharge and the left testicle began to enlarge, finally reaching the size of the patient's fist; it became adherent to the scrotum, after which it opened externally.

When the patient entered the hospital the right testicle was about normal in size, but the epididymis was indurated, as was also the vas deferens. The left testicle and epididymis were represented by a swelling twice the size of a normal testicle and it was adherent to the subcutaneous tissues of the scrotum. At this time the sinuses in the perineum were curetted and a portion of the left testicle which was diseased was removed by Dr. Darling. The cavity was disinfected with carbolic acid followed by alcohol, and was packed with iodoform gauze.

Pathological examination of the curettings showed the process to be tuberculosis involving the epididymis and parenchyma of the testicle.

Repeated curettings of the sinus tracts in the perineum were done. Pathological examination of the curettings showed them to be granulation tissue with extensive epidermatization.

In March he returned to the hospital, stating that the left testicle had commenced to enlarge again three months before, and was now about the size of a goose egg; a fluctuating swelling containing about half an ounce of pus formed the upper portion of the tumor. The remainder of the diseased testicle was removed by me March 18, 1907. Pathological diagnosis was tuber-

culosis and hypernephroma (adrenal of Marchand).

These cases to one experienced in surgery present points of clinical interest worthy of careful meditation. After more than thirty-eight years of the practice of my profession, and having had my full quota of many thousands of hospital patients during that period, these cases commend themselves to me as worthy of careful consideration.

One of the chief objects I had in view in reciting the histories of these five cases will have been attained if I have suggested to a few of my hearers the paramount importance of a correct diagnosis in every case, even those which at first sight seem most simple. The art of diagnosis on one side is becoming seemingly more accurate, on the other is relegated to a second place, the operation being relied upon to clear up doubts more easily than a searching, exhaustive study of the case. Accuracy in diagnosis is within the reach of almost anyone, provided the method of exclusion be adopted. It will not do to consider the most probable explanations, but every possible condition must be carefully studied and excluded, otherwise most serious errors in diagnosis and treatment will occur. It will not suffice to have ascertained the salient points in the history of our case, have even arrived at a correct diagnosis, and have determined the proper treatment, if in that special case a careful investigation of the peculiarities of the patient under consideration have been omitted, otherwise a well nigh fatal contra-indication may exist to an otherwise eminently proper and necessary operative procedure, as exemplified by my hemophilic case.

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In alcoholic subjects head injuries are not only more dangerous to life, but are liable to be followed by a more or less marked loss of mental power.

The subcutaneous injection of physostigmin salicylate before operation is an excellent means of preventing post-operative atony of the intestine.



## DIRECT TRACHEOSCOPY AS AN AID TO DIAGNOSIS\*

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J. E. GLEASON, M. D.Detroit

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The history of direct examination of the dark cavities of the body forms an interesting chapter in the development of accurate diagnosis. The underlying principle of examination through a straight tube dates from 1834, when Bonnafont devised an illuminated otoscope. Desormeaux, in 1853, published the description of a well-developed urethroscope. By the same principle, Kussmaul, in 1868, demonstrated a carcinoma of the esophagus, the first successful direct esophagoscopy. In 1879, Nitze with his cystoscope laid the foundation for cystoscopy and catheterization of the ureters as performed today. This principle of examination was not applied to the lower air passages until 1894. Rosenheim and others in performing esophagoscopy had often entered the larynx inadvertently, but to Kirstein is due the credit of recognizing the practicability of obtaining a direct view of the larynx and trachea. His method is the laryngotracheoscopy of today, and is based upon the possibility of bringing the larynx, trachea and mouth into a straight line by firm forward pressure upon the base of the tongue. The introduction of a tube through the larynx into the trachea, however, Kirstein considered highly dangerous. It remained for Killian, in 1897, to perform the first direct upper tracheoscopy with a tube, in order to remove a foreign body from the right bronchus, and to him must be given the credit for proving that a straight tube can be safely

passed through the trachea, and even into the branches of the bronchi.

Direct examination of the trachea is performed in three ways:—direct laryngotracheoscopy (Kirstein's method), direct upper tracheoscopy by means of a tube introduced through the larynx into the trachea, and direct lower tracheoscopy, the tube being introduced through a tracheotomy wound. It is to the clinical advantages of these methods that I wish briefly to call your attention today.

Direct laryngotracheoscopy is performed with the aid of a straight tube or flat spatula resting on the base of the tongue, firm forward and downward pressure of which elevates the epiglottis, affording a view of the underlying structures. Illumination is furnished by a Kirstein headlight. The success of this method depends mainly upon the mobility of the base of the tongue. In about 25 per cent of cases, Kirstein, using a flat spatula, was able to obtain a view of all structures as far as the bifurcation. In 50 per cent a partially successful examination could be secured, the posterior half of the larynx and part of the trachea being visible. In the remaining 25 per cent no view of the underlying parts was possible. With the aid of a Killian tube spatula, which allows greater movement at the base of the tongue, it is possible to examine a much higher percentage of cases successfully under cocaine. The picture obtained being a direct one, affords a much better idea of the relative position of the parts than the inverted one seen in a mirror, and at the same time the foreshortening of the latter is largely

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avoided. The posterior laryngeal wall lies before us as a flat surface, the advantage of which in diseased conditions of this region is evident. Direct laryngotracheoscopy is not to be considered as doing away with the usefulness of the laryngoscope. It is, rather, a supplement to the latter, its use being indicated whenever the mirror has failed to give satisfactory results. It is especially in children that this occurs, and it is in them that the direct examination is especially useful, since it is practically always successful, no matter how young the child. In examinations of the larynx for stridulous breathing or papilloma, or of the trachea for post-tracheotomy granulations or stenosis, this method is often the only one available. It is also easier to recognize paralysis in adults when the larynx is dislocated or turned on its axis, a diagnosis not always simple with the laryngoscope. Operations may be performed with its help, especially when the parts involved are the epiglottis or the posterior half of the larynx. Intra-tracheal conditions, such as inflammations, crust formations and tumors, are in certain cases easily seen by this method. In others for physical reasons, or on account of pathologic changes, it fails. It is especially in these latter cases, or when greater precision of observation is required, that direct upper tracheoscopy with the tube is indicated.

The instrumentarium is practically the same as for esophagoscopy, except that shorter tubes are used. After thorough cocaineization of the palate, base of the tongue, epiglottis, glottis and subglottic space, the tube is introduced with or without the aid of the tube spatula, and after cocaineization of the lower part of the trachea is passed to the bifurcation. Narcosis is generally required for this procedure in children. The diagnosis of lesions low down in the trachea such as syphilis, stenosis or tumors, is thereby rendered possible, and the treatment, either local or operative, greatly facili-

tated. But it is much more often on account of extrinsic causes that the examination of the trachea is of importance. Surrounded by numerous structures often the seat of enlargement, changes are noted in its position and form which have a bearing on diagnosis as well as prognosis. Tumors of the mediastinum, aneurysm, enlarged thyroid, and carcinoma high up in the esophagus cause changes in the form of the trachea more or less characteristic in their location and extent. The most frequent of these, especially here in Michigan, is goitre. It is important to remember that the mechanical effects of struma upon the trachea are by no means directly proportional to its size, so that dyspnea of obscure etiology should never be charged to the presence of thyroid enlargement until constriction of the lumen of the trachea is proven. When compression is present, it is important to know its position and extent and whether it is single or multiple, in order to insure the removal of the offending part at operation. This is especially true when both lobes are involved. In malignant disease of the thyroid, the knowledge whether the tumor has penetrated the trachea is decidedly pertinent in determining the plan of treatment.

The third class of cases in which the introduction of tubes is of importance is that of foreign bodies lodged in the trachea or bronchi. Direct upper bronchoscopy is only a step further than direct upper tracheoscopy, and direct lower tracheoscopy through a tracheotomy wound is most frequently performed in order to reach the bronchi, and thus becomes direct lower bronchoscopy. The removal of foreign bodies by instruments inserted through tubes has been remarkably successful, and should supersede all other methods. In nine-tenth of reported cases thus treated, removal was successfully performed. It is only when the foreign body is small and deeply situated, or when proximal

stenosis furnishes an insurmountable obstacle, that pneumotomy or bronchotomy is necessary. The mortality of foreign body cases, formerly nearly 25 per cent, has been greatly reduced.

In conclusion, we have in direct exam-

ination of the lower air passages a material aid not only to the laryngologist for examination and treatment, but also a help to the general surgeon. Direct inspection, the most valued factor for accurate diagnosis, is rendered possible by its use.

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## TWO COMMON ORTHOPEDIC CAUSES OF SCIATICA\*

WILLIAM E. BLODGETT, M. D.

Detroit

Sciatica means pain in the sciatic nerve. This pain when chronic is usually caused by irritation of the nerve in the pelvis. Sciatic neuritis, if accompanying, is not usually the primary cause. Two common primary causes of sciatica are hypertrophic arthritis of the lumbar spine and sprain of a sacroiliac articulation.

The signs of hypertrophic arthritis of the spine are as follows: referred pain, of gradual onset, often in other nerves as well as in the sciatic, as for instance the anterior crural, at first in only one leg; limitation of passive mobility in the lumbar spine, more marked in flexion toward one side than toward the other; often radiographic evidence of the hypertrophy of bone and cartilage at the intervertebral disks, this hypertrophy causing, directly or through the produced inflammatory reaction, irritation of the nerve roots, and thus giving rise to the referred pain in the sciatic or

other nerves. The diagnosis depends upon the signs given above, and upon painstaking exclusion of any other possible cause, and upon favorable response to treatment. As the pain is produced by the mechanical irritation of the hypertrophied edges of bone, the reasonable principle of treatment, as in hypertrophic arthritis of any part, is local rest. The lumbar spine can be put at rest by a corset, or a leather or plaster jacket. Simple recumbency usually will not relieve the sciatic pain, because in recumbency the spine is relaxed and not held in its normal curves. If effective fixation of the spine does not greatly relieve the pain by the end of at most a week, the cause of the sciatica is probably not hypertrophic arthritis of the spine.

The signs of a sprained sacroiliac articulation are as follows: pain in the vicinity of the sacroiliac joint, usually at first of sudden onset, following an injury sustained with the body flexed on the thighs; referred sciatic pain, explained by the proximity of the sciatic nerve to the sacroiliac joint; occasionally pain

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in the coccyx; no involvement of other nerves; limitation of mobility of the spine when the motion involves the sacroiliac joint, as in the spinal motions when standing, but when the pelvis is steadied by the sitting posture and held by the surgeon's hands, the spinal motions are found much freer. The motions of the hip with the knee flexed are normal, but flexion of the thigh with the knee extended, thereby pulling through the hamstrings on the pelvis, causes much pain; tenderness over the sacroiliac joint. Diagnosis of a strained sacroiliac joint is made by the above signs, by thorough exclusion of other possible causes for the lumbago and the sciatica, and by favorable response to treatment.

The principle of treatment of a sprain of the sacroiliac joint is the same as of a sprain anywhere else, protection and rest. This principle of rest is applied to the sacroiliac joint by compression on the sides of the pelvis below the iliac crests, just above the great trochanters. Compression applied too high, i. e., at the crests, tends to spread the sacroiliac joints open. A ready method of treatment is by plaster strips applied around the back and sides in the region mentioned, first drawing the skin tight toward the median line of the back. A belt is a more permanent means. A pad over

the joint, and sometimes a complicated apparatus is needed to protect the joint sufficiently. Occasionally the joint resists all treatment until the leg is thoroughly pulled with the spine hyperextended, thus reducing a slight subluxation of the joint with an audible click, and immediate relief. A relaxation and sprain of the sacroiliac joint accounts for some of the cases of chronic disability after parturition, which normally involves for a short time a relaxation of all the pelvic articulations. Sacroiliac sprain is probably the cause also of some instances of backache in women wrongly referred to the pelvic organs. It seems reasonable to believe that undue congestion of a pelvic viscus determines congestion and weakness of the sacrosclatic joints, and vice versa.

In looking over the six instances of sciatica of spinal or sacrosclatic origin, which I have recently had the opportunity of studying throughout, I am impressed with the need for basing diagnosis on painstaking exclusion of other causes and on prompt relief of symptoms by appropriate treatment. In view of other men's large experience, it is probable that at least a half of the cases of chronic sciatica are due to hypertrophic arthritis of the spine or sacroiliac sprain.

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**Adrenalin With Cocain in Eye Surgery.**—S. THEOBALD, Baltimore (*Journal A. M. A.*, July 27), finds that adrenalin chlorid used with cocain in certain eye operations definitely enhances the anesthetic effect of the latter. In operations on the cornea and conjunctiva cocain alone is usually amply sufficient, but in those on the ocular muscles, the lachrymal apparatus, and for the cure of chalazion and other tarsal cysts, the conjunction of the two drugs has its advantages. In operations involving a section of the cornea, especially cataract extraction and iridectomies, with the exception of iridectomy for inflammatory glaucoma, experience has led him to be chary of the use of adrenalin. In inflammatory glaucoma cocain anesthesia alone is likely to be unsatisfac-

tory and the astringent action of adrenalin is an advantage. In operation for pterigium Theobald thinks adrenalin contraindicated, as its blanching effect renders the outlines of the growth more difficult to recognize, moreover cocain anesthesia is sufficient. Another way in which cocain is valuable, as pointed out by Dr. J. E. Colburn, is by checking hemorrhage it renders the detection of foreign bodies more easy. Though Theobald has usually employed adrenalin in full strength (1-1000), he has never seen any bad results other than those referred to. As a therapeutic agent, *per se*, in the treatment of inflammatory affections of the eye it has not proved efficacious in his hands.

## HYGIENIC MEASURES IN THERAPEUTICS\*

H. T. CARRIEL, M. D.

Marquette

All will admit, I think, that the use of hygienic therapeutics is somewhat neglected in routine medical practice. There are, perhaps, plausible but not excusable reasons for not giving ample time and attention to minor medical cases; minor so far as danger to life is concerned, but nevertheless, like the minor surgical cases, they form the majority of patients treated. It should be the physician's duty and greatest pleasure not only to prolong life but to foster health and physical welfare. "Physicians are the Priests of the Religion of Health." As the problems of Peace are usually more difficult and numerous than the problems of War, so the maintenance of individual physical well-being is often a more difficult and intangible problem than the prolonging of life. A wrong diagnosis is due, 90 times out of 100, not so much to the ignorance of the examiner as to the failure to make a thorough, careful, systematic examination of the patient, and the personal and family history. The failures in treatment are sometimes due, in my opinion, to partial or total disregard of hygienic measures that encourage health and indirectly remove disease.

Drugs may be the most important available means with which to fight disease from all causes. They are pre-eminent in removing some causes; are of great usefulness in combating infection; in relieving pain and promoting rest; in temporarily stimulating a lag-

ging function or depressing an over-active one; in opening up channels of excretion, thus increasing elimination and, by vaso-motor effect, relieving an inflamed or congested part. Often the value of these in aiding nature to right herself cannot be over-estimated. The specific drugs and certain serums are of course supreme in their respective fields.

In many conditions drugs are absolutely indispensable, but regular and frugal habits and the various hygienic measures are indispensable at all times—in health to keep in health; in sickness to promote health. Week in and week out, year in and year out, and in a large percentage of human ills pharmacopeial remedies have but a small place, to say nothing of the proprietary preparations that are so convenient to prescribe and are advertised to the profession and to the laity to be specifics for many things, a means of immunity from the results of physical sins of commission and omission, and even a substitute for Mother Nature herself.

People's convictions result largely from their experiences. If their experiences have been happy, their judgment of a thing is favorable, and as there are all grades of experiences, so there result all grades of opinions concerning remedial measures. These differences extend all the way from Elbert Hubbard, who will tolerate no drugs, to the rustic old woman who says she knows there is a drug to cure each disease, and if one prescription does not cure, it is because the right medicine has not been

\*Read at the annual meeting of the Upper Peninsula Medical Society, July, 1907.

used, and the proper thing to do is to try a different kind until you strike the right one. Hubbard says: "Ninety-nine people out of a hundred who go to a physician have no organic disease, but are merely suffering from some symptom of their own indiscretion, and in the vast majority of cases, they are suffering through poisoning caused by an excess of food. Coupled with this go the bad results of imperfect breathing, irregular sleep, lack of exercise, and improper use of stimulants, or holding the thought of fear, jealousy and hate. All these things, or any one of them, will in many persons cause fever, chills, cold feet, congestion and faulty elimination." He also says: "To administer drugs to a man suffering from malnutrition, caused by a desire to 'get even' and a lack of fresh air is simply to compound his troubles, shuffle his maladies, and get him ripe for the ether-cone and scalpel," and Hubbard is partly right, but the best time to go to a dentist is before there are any badly decayed teeth, and the right time to consult a physician is before there is any serious organic disease. The time is coming when the laity will go to their physicians at regular intervals to have themselves and their habits inspected. This is the right way, and physicians will become more and more hygienic specialists. Some people that have had unhappy experiences with a narrow-minded, or over busy and strictly drug prescribing type of a man with an M. D. degree have been led to the conclusion that the science of medicine begins and ends with the giving of drugs. This unfortunate and very untrue conclusion reacts unfavorably to general confidence in the medical profession. When a patient's condition is serious as to life, generally the physician gives that patient ample time and study and employs every therapeutic means of possible value at his command. The laity have noticed this and the good results, for you often hear it said that a doctor "is all right in seri-

ous sickness." In other words, a physician is all right when he gives a case attention and does all that medical science can do.

In restoring or maintaining physical well-being we must first find and remove, if possible, the cause or causes of any abnormality. This is sometimes not easy, and one may have to keep the patient for a time under observation. However, the trouble may often be traced to some physical sin of commission or omission, and sometimes it is apparently trivial. For instance, I was called to attend a six-year-old child who had been "ailing," as his mother termed it, for several months. He was whiney and thin, had little appetite and a bad complexion. I noticed the child eating sugar, and the mother admitted that he did not have much appetite for anything else, so since she thought he should eat something she allowed him to have sugar at all times. A few weeks after the continuous consumption of sugar was forbidden, and plain wholesome food substituted, the patient gained in weight, color, strength and spirits. What good results could be expected from any medication had this indiscretion through carelessness been overlooked. As a matter of fact, it was overlooked by a first-class physician who previously attended the case.

It is almost as foolish to largely neglect the hygienic therapeutic measures that may be indicated as it is to imagine that massage is the proper thing for all ailments and diseases. As foolish and narrow-minded to depend on drugs almost exclusively as it is to never consent to the use of a drug. Frugality, regularity, massage, exercise, work, recreation, rest, sleep, limited diet, forced feeding, internal and external hydrotherapy, sunlight, fresh air, mental suggestion and medicines all have their proper, though limited rational uses.

Many times it is not new therapeutic means that are needed to bring about



good results, but a better understanding and use of the means we have.

The successful use of hygienic therapeutics sometimes requires careful detailed directions; observing the patient, to modify these directions or to see that they are understood and carried out. For instance, it is one thing to tell, in an off-hand manner, a patient with nervous dyspepsia "to be careful of his diet," and quite another to teach him not solely what he should eat, but how he should eat, and how to conduct himself before and after, and even sometimes between meals. The poor physical condition of a horse that habitually bolts its grain is corrected successfully by an ingenious device that allows oats to be taken only so fast. Some people are like this kind of a horse, only worse. They go to meals out of breath, hot, tired or excited, bolt or semi-bolt their food, and right after eating begin doing something strenuous, and sooner or later suffer more or less from indigestion. We are all familiar with the reasons for this suffering. I have had several cases permanently relieved by proper correction of these faults. If a patient is physically or nervously exhausted at meal time, it is sometimes marvelous how a short rest, relaxed on the flat of the back, will temporarily revive the strength and feelings. Appropriate medication to regulate bowels and correct the gastric and intestinal catarrh is, of course, indicated temporarily, but we must get at the etiologic factors to accomplish good and permanent results.

During the middle of last winter I saw a chronic consumptive with an acute bronchitis. She complained that she easily caught cold, had practically no appetite and "felt dragged out" most of the time. I believe that in a very large measure the open air treatment of tuberculosis helps heal the lungs through the stomach by greatly increasing the capacity of the patient to take and assimilate food without repulsion, nausea or

digestive disturbances. To be brief, this patient began to sleep with a blind fresh air chute affair from the head of her bed to an open window, such as you have all seen. She also took a short afternoon rest in this bed, where her head was in direct contact with the out-of-door air. She was compelled to continue her housework and care of her children, but it was not long before she felt more rested and refreshed on rising in the morning, appetite improved, and eggs and milk were now easily taken between meals. She has been free from colds, and has gained in weight and strength.

Among my first patients who helped arouse my interest in hygienic therapeutics were three children of a man employed by the Colorado Fuel and Iron Company. These children had acute sore throats, bronchitis or digestive disturbances most of the time. Their mother continually dosed them with medicine. Finally, I, as the local company's surgeon and dispenser of medicines, declined to furnish any more, since she had not followed my general hygienic directions. Once again I explained to her that she was ruining the present and future health of the children by keeping the house stuffy and hot, by dressing them over-warm, by tickling their appetites with fancy cooking, and was making greenhouse plants of them by not allowing them to play and romp out of doors in the snow all winter, except on rare and brief occasions. And I mentioned that a dog or a horse would die under the same conditions. My general directions are now carried out, and the last time I saw these children they were anything but anaemic and soft, and as their damp clothes and stockings were changed as soon as they came home after coasting, et cetera, there was now a reduced but more rational demand for medicine.

Physical culture is good, but not so universally good as the physical culture magazines would make believe. For

some persons it is contra-indicated, yet for the majority, with sedentary habits, a system that combines recreation and exercise, without wear and tear on a probably already overworked nervous system, is beneficial. Many a physical culture enthusiast reaches a point where he begins to feel languid, irritable and tires easily—these first symptoms of exhausted nerve cell storage batteries make their appearance. It is folly to develop the muscular, vascular and respiratory system at the expense of the nervous system. The hygiene of this system should not be forgotten.

And so it is, everything has its uses and limitations, and who but the regular physician can discriminate and prescribe?

People seldom die from overwork, but do often die from underrest and relaxation of the body or the worry center.

Now, for fear I forget, let me say that the sins of the mind—fear, jealousy, worry, and hate—so keep the nervous cell storage batteries exhausted or perverted that health and good spirits are impossible. Right thinking and charitable feeling with proper care of the body are a strong combination for health. Take an animal free from organic disease, give it kind treatment, and the best of care, and it thrives. Take a woman, or a man, for that matter, free from organic disease, give her kind treatment and the best of physical care, the "rest cure" if indicated, and if the patient is guilty of unhealthy thoughts and fears, you get no good results, nor will you get them unless the surroundings, associates (or nurse, as the case may be) or mental suggestion correct the mental perversion.

I want to mention something that has time and again proven almost a specific

for the troubles and ill-feelings of housewives, who plod along from morning to night, are always physically tired and nervously worn out, and seem to have no time for recreation, out-door life or rest. It helps matters if these women would plan their work ahead, hustle and do the heavy or disagreeable work in the morning and get their principal meal at noon. Then in the early afternoon, when the bulk of the day's work is done, undress, take a luke-warm sponge bath, lie flat down in bed and rest for an hour or more. After this, dress up and go out of doors or confine themselves to light work they rather enjoy doing, and so vary the day; they find they have some recreation, do their work unusually well, feel more rested and have better health and spirits. Likewise, many business men have too much business, too much monotony and too little health.

It is not necessary for me to mention the value of good general nursing in acute serious illnesses.

Hygienic therapeutics are admitted specifics for some serious pathological conditions—the combination of out-door living, rest and forced feeding for tuberculosis; rest, excluded but pleasant surroundings, mental suggestion and forced feeding in neurasthenia—is there any reason why some combination of these and other remedial or healthful measures that correct an evil or supply a deficiency are not specifics for a multitude of people who are like a plant that does not thrive for the want of something necessary to its health development.

In conclusion, the intelligent gardener can usually tell whether his plants' unthriftiness calls for paris green, more or less water, sunshine or soil. The intelligent, broad-minded physician will give the same solicitous care to human plants.

## THE PROFESSIONAL SECRET AND THE LAWS.\*

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CHARLES L. GIRARD, M. D.,  
Escanaba

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"I swear by Apollo, the Physician, and Esculapius, and Health and all Heal, and all the Gods and Goddesses that, according to my ability and judgment, I will keep the oath, and this stipulation. . . In whatever house I enter . . . Whatever, in my connection with my Professional Practice, or not in connection with it, I see or hear in the life of men which ought not be spoken, I will not divulge, reckoning all such should be kept secret. . . . While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and practice of the Art, respected by all men in all times; but should I trespass and violate this Oath, may the reverse be my lot."

So reads the Hippocratic Oath, with reference to the professional secret which Hippocrates exacted of his disciples, and which has bound all our professional ancestors until it has reached our immediate progenitors with no material changes, and unviolated by thousands upon thousands of individuals of different characters, pertaining to all climes and to all ages, through so many centuries, and in some instances, under dire stress. The Gods certainly heard it with favor and manifested their approbation by granting to the faithful observers thereof "the practice of the art respected by all men in all times." Indeed, the beginning of the decline of the former respect of the public towards the medical profession almost coincides with the time when, under the whip of the law, medical men were forced to relax somewhat of their former secrecy. I have said our immediate medical progenitors, for it

was not so very long ago when the antique ceremony of administering the Hippocratic Oath to the new graduate, previous to conferring upon him his diploma, was still in practice, and though this time honored custom has, with many others, been abandoned as antiquated, the principles embodied in it have been preserved in the Code of Ethics of the American Medical Association. But even this is fast becoming obsolete, and by many of us would be blithely relegated to the ever increasing scrap pile of fogysm.

Still, it cannot be denied that this oath of secrecy had its foundation, not only upon the strictest principles of honor, but also upon the soundest policy, for, possessed of the innermost secrets of the individuals and families, a physician's discretion is, along with ability and probity, his highest qualification, and that which enables him to command confidence and implicit trust; upon these rests his success; to win them his highest aim; they are the brightest jewels of his professional crown. If then this secrecy is so important and based on such worthy motives, why should it be lightly dealt and tampered with by the laws, except for the most pressing reasons? However, it has been for ages disregarded by the common law, and still remains so; but reasons of public policy have compelled the several states to provide for it a certain amount of protection by enacting special statutes to this effect.

In Michigan the law reads thus: "No person duly authorized to practice physic

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\*Read before the Upper Peninsula Medical Society, at Menominee, July, 1907.



or surgery shall be allowed to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon." (Howells stat. 7516.) This privilege includes both the secrecy against publication and the right to control the introduction in evidence of such information or knowledge communicated to, or possessed by the physician; the latter right exists, although the former has ceased to be of any benefit. For instance, the party may have disclosed to a third person all that he has to his physician. Now, while his admissions may be proved in a proper manner by such third person, they cannot be proved by the physician against the objection of the party. (Supreme court; Breisenmeister vs. K. of P.)

From this privilege, however, are excepted the communications relative to criminal abortion, and this, for the avowed purpose of facilitating the convictions which are so difficult to obtain in that class of cases. As a reinforcement of this, there is even now, pending in the Michigan Legislature, a bill for an additional statute to the effect of making it a misdemeanor to propose to a physician to perform such an abortion. Now, gentlemen, in the latter instance, would you really think it your duty to betray the misguided mother who, broken in health and spirit by the manifold cares of an already too exuberant family, or the anguish-crazed young girl, who has been the victim of her carefully nurtured ignorance, when they come to tempt you to an act the full criminality of which they hardly realize, or would you only instruct them, and recall to them a better sense of their moral obligations? Should you adopt the latter course, what becomes of the utility of this law? Unless, indeed, it would be provided also that the widest publicity

should be given to it, so as to scare these people off their criminal intents. But usually nobody but the legislators and the lawyers know anything about the addition of any new law to our statutes, and still we are constantly reminded that "ignorance of the law excuses no one." Therefore, these two measures are much more honorable in their intent than shrewd in their concept, for the real difficulty to overcome lays in the defective machinery of the law itself. Let the legislators curb their pettifogging proclivities; let them rid their code of procedure from their medieval traditions and modern red tape, and convictions of real criminals shall become possible, and people in the audience, endowed with common sense, but unshakled by the oath that binds the juror to follow the instructions of the court, will no more be sorely tempted to cry aloud the old Scotch verdict: "Not proven but guilty."

So much for the criminal laws with relation to the professional secret. Now, as to the health laws: When modern progress in sanitary science devised certain quarantine and other regulations as the proper means to combat contagious diseases, it was judged necessary by the state to give countenance and support to these measures by making the report of such diseases obligatory. And upon whose shoulders should this responsibility land the heaviest, if not the physician's, bound by his oath of secrecy? But the oath having been formulated for the benefit of humanity, it naturally follows that when the greater good of humanity required it, the letter ought to give way to the spirit, and the part be sacrificed to save the whole; therefore, the physician's conscience absolved him. Nor did he reckon that his obedience was likely to cost him the affections of as many of his patients as were so ignorant and prejudiced as to mistake his motives and regard as a sort of spy the man they were accustomed to welcome as a minister of con-

solution. The law was just and wise and that was sufficient to him. This was nevertheless a serious blow struck at the professional secret; but more were to come.

As it was, this victory of the law over the Hippocratic Oath has proven to be far from an unmixed blessing; for taking no consideration of the ignorance of the public, it ran contrary to popular prejudice and has shared the fate of all other laws not backed by public opinion; that is, they become more conspicuous in the breaking than in the observance; and though the situation has been greatly improved in these latter years, there are still many, too many people of the ignorant class who will run the greatest risks of the lives of their children rather than call upon the physician who, they well know, is sure to report the case and have the house placarded and quarantined; such concealment increasing the danger of the spreading of the contagion and defeating thereby the very end to which the law owes its existence.

More insidious and no less dangerous was the attack upon the professional secret made by the statute requiring the certificates of death; for the cormorants who parade under the name of insurance men have seized upon this new opportunity. Ever on the alert to find a pretext for evading their obligations, they haunt the registration bureau to filch information wrested by the law from the family physician, and which ought to remain strictly confidential and for the sole use of the health authorities. This certainly ought to be looked into and the practice stopped. These people carry their audacity even to the point of asking the family physician about diseases and injuries suffered by their clients, or the examiner himself if he happens to have treated the applicant on former occasions. I do not hesitate to say that, unless the examiner can find by present actual examination traces of disease or injury, he cannot mention such things (unless the

applicant consents to it) without a serious breach of duty. The birth registers, not being provided with any protection against their being consulted indiscriminately by scandal mongers and other persons mischievously inclined, are also open to criticism. These two statutes, as they exist today, may be considered as defective in so far as they are apt to cause unnecessary hardships or cast unmerited reproach, and they ought to be amended in such a way as to make the officials who keep these records subjected to the same restrictions as to secrecy as govern the physicians themselves. We hope that in expressing these opinions we will not be misunderstood. We have reference only to the possible abuse arising from the present wording of these statutes; our desire is to amend, not to suppress them.

We cannot close this paper before bringing to your notice a rumor of a bill to be introduced at some future time, wherein it shall be made a misdemeanor not to report cases of venereal diseases. If this blow at the Hippocratic Oath ever comes to have its full effect, the professional secret will be done away with altogether, and physicians shall be held in the future by no other bond than that of any ordinary gentleman who is desirous of doing honor to his title as such. We have seen how the tampering with the professional secret has failed to produce all the good that was expected of it because of an absence of knowledge of mankind and his failings, which are ignorance and egotism, the father and mother of prejudice. So then, let not the same error be repeated in the coming struggle of the health laws against venereal diseases that was committed in the case of common affections, that is: legislating first and educating afterwards, as has been done so far. If the public is not previously enlightened by a regular and systematic campaign of education about the baneful effects of venereal diseases and the laws of sexual life, we

foresee manifold troubles resulting from the projected legislation, among which unpleasant relations between physician and patient shall not be the least. And to be brief, it is greatly to be feared that the already too great disinclination of such patients about seeking timely treatment, will be increased ten-fold, and may create a greater havoc in the community

than that which it strives to abolish.

In conclusion, we would deprecate the passing of the proposed law for the present and until such time as by concerted and perseverent action the profession shall have succeeded in educating our citizens into accepting it as a boon to mankind instead of resenting it as a fresh attempt on their liberty.

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## THE PREPARATION OF CATGUT.

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A. W. HORNBOGEN, M. D.,  
Marquette

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I have in the past encountered various difficulties in the successful preparation of good suture material, and a short article on this subject might be interesting and profitable to you all. It is not my intention to have my name associated with any particular method of preparing catgut.

About twenty-one years ago, while a student, Senn, then traveling in Europe, found that Kocher of Berne was obliged to abandon catgut, owing to infection from anthrax in several of his operative cases. On hearing this, Christian Fenger discontinued its use at once and used silk instead. In 1890, I induced Fenger to again use catgut after it had been boiled in alcohol one hour a day for three consecutive days. No bacteriologic examinations of this gut were made, but the continued use of it showed it to be quite reliable.

Senn, in 1905, advocated the Claudius method of preparation and it was soon adopted by many surgeons in this country. The Claudius method is to immerse

the gut for 12 hours in ether, then in one per cent solution each of iodine and potassium iodide in 80 per cent alcohol. Preserve in this solution.

I prepared 1100 feet of gut by this method and found that the solution soon destroyed its tensile strength, in fact it soon became absolutely worthless as a suture material, despite the fact that it remained perfectly sterile.

Dr. Alex V. Moschowitz of the Mount Sinai Hospital of New York found by not immersing the gut in ether for twelve hours but, by placing it in the iodine-potassium iodide solution for eight days and then keeping it in a dry sterilized bottle, well sealed, it retains its tensile strength. I have here some of the Senn-Claudius gut prepared by a reliable surgical supply house. You will notice that this one per cent solution of iodine in 80 per cent grain alcohol stains the operator's fingers as well as the towels and sponges used on the operating table. Another objectionable feature is that after removal from the glass rod or spool it is necessary to run it through your fingers several

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\*Read at the annual meeting of the Upper Peninsula Medical Society, Menominee, July, 1907.



times to straighten it, as it is impossible to use it without removing the numerous coils and kinks. It appears to me this undue handling with the naked hand has a tendency to reinfect it, although Dr. Moschowitz has demonstrated that iodized gut can not be infected. The only serious draw-back is the loss of tensile strength, as you see slight tension breaks the strand I have in my hand. The dry iodized gut is very stiff and wiry, and is difficult to handle. Owing to the fact that iodized gut has been proven by bacteriologists and surgeons to be sterile as well as antiseptic, and practically non-infectible, I was anxious to use suture material impregnated with iodine.

Dr. Willard Bartlett of St. Louis, published his method of preparing the so-called Bartlett gut in the *Journal of the American Medical Association*, April 21, 1906. In this article he says: "So many prominent surgeons have adopted my suggestions for the preparation of catgut that I wish to describe methods which make the procedure vastly simple in its application, and which at the same time remove any element of uncertainty regarding the results likely to be obtained." Shortly after this article was published I began to sterilize catgut by this method, and I found that it was absolutely impossible to prepare suture material by the Bartlett process. The resultant gut was very brittle and much of it was broken into short pieces when I removed it from the oil. Out of 1500 feet of gut, I did not find more than one dozen 30-inch strands that were usable. The tensile strength of these few strands was not what it ought to have been. I wish to say that 300 feet of gut were prepared each time and all five trials were failures. The catgut was purchased from five different instrument houses located in Chi-

cago, Milwaukee, Grand Rapids, Detroit and Cincinnati; one-half of the catgut was the polished and the balance of the unsandpapered variety. It was the best German gut to be found on the market. I was finally advised to bake the gut in an oven to drive off the water it contains and then follow the Bartlett method.

This catgut which I am now showing was prepared in the following manner:

Each strand of ten feet is cut in four lengths, each 30-inch length is then coiled and strung on a string. It is then baked in an oven for fifteen minutes at a temperature of 240° F., and then transferred to the jar of liquid petrolatum heated to 212° for four hours and one hour at 300° F. The temperature is then allowed to return to 212° F. and the catgut is then pressed for a few moments between sterile towels. It is then placed in wide-mouthed bottles filled with a one per cent solution of iodine crystals in Columbian spirits. Examination will show that it is very soft and pliable, it has great tensile strength, combined with absolute aseptic and antiseptic properties which with its resistant absorbability render it an ideal suture material.

It will be noticed that the essential part of the process that insures the success of this method, is to bake the gut in an oven before placing it in the oil. Dr. Bartlett does not mention this part of the method in his article and I know that it is impossible to follow the directions that he so generously gives to the medical profession and obtain suture material fit for use. Possibly in some future publication he may enlighten us how the DeWitt-Sukens Company of St. Louis successfully prepares a very good quality of catgut under the trade mark, "The Bartlett Process."

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If a foreign body in a child's ear cannot be removed by syringing, it is best, as a rule, to administer a general anesthetic before the use of

instruments for its extraction. Few children will keep quiet enough to permit of this being done without the risk of injury to the meatus or drum.

## A RARE CASE OF ACCESSORY RIB

HUGO A. FREUND, M. D.

Detroit.

Rare anatomical specimens of malformations, faulty development, or accessory parts, are reported every now and then from large pathological institutes or from dissecting rooms. For many years Wenzel Gruber conducted a section in *Virchow's Archives* where he published accounts of some remarkable anatomical curiosities that he had, from time to time, collected from the large material, dissected in St. Petersburg. Though unusual specimens are reported from every system of the body, probably none claim more oddities than the skeleton. The bony framework, both from its embryology and comparative morphology, permits of many anomalous formations. Especially is this true of the thoracic cage where reversions and clefts are frequently seen.

Perhaps the most common costal anomaly is the supernumary rib, either cervical or lumbar. The former is sometimes of clinical significance, in that it is mistaken for other structures or it gives the individual a peculiar appearance. There are innumerable reports of accessory ribs covering series diagnosed during life, found at operation, or met with on the dissecting table.

Next in importance come cleft ribs, of which there are many instances on record. These clefts extend a variable distance back from the sternum and the two ends articulate separately. Pepper records a case of bifurcation of the fourth rib on the right side, two and one-half inches from the sternum. Stru-

thers cites several cases of bifurcated ribs with more than one articulation with the sternum.

Of cases of union between two ribs those in which there is a flat plate (with perhaps only a slight groove) are occasionally seen. Scott reports a rare instance of a bony outgrowth extending from one rib, running to and uniting with the other by distinct articulation.

The anomaly that I wish to report differs from any that I have been able to find mentioned in the literature excepting one—a somewhat similar case reported by Gruber in *Virchow's Archives*. In this case the anatomical specimen was that of a deeply forked third rib on the left side, which had no counterpart on the right. It had no articular surfaces. (The text shows a fair picture of his specimen.)

What adds interest to the case here reported is that it was disclosed during life by a radiograph made for the purpose of detecting early pulmonary tuberculosis.

The patient in whom this anomaly is present is a female aged twenty-four. Her family history is negative in every regard. There have been no anatomical peculiarities in the family nor in any of the collateral branches so far as she is aware. She had the ordinary diseases of childhood in a mild form, but has been in excellent health up to the present time.

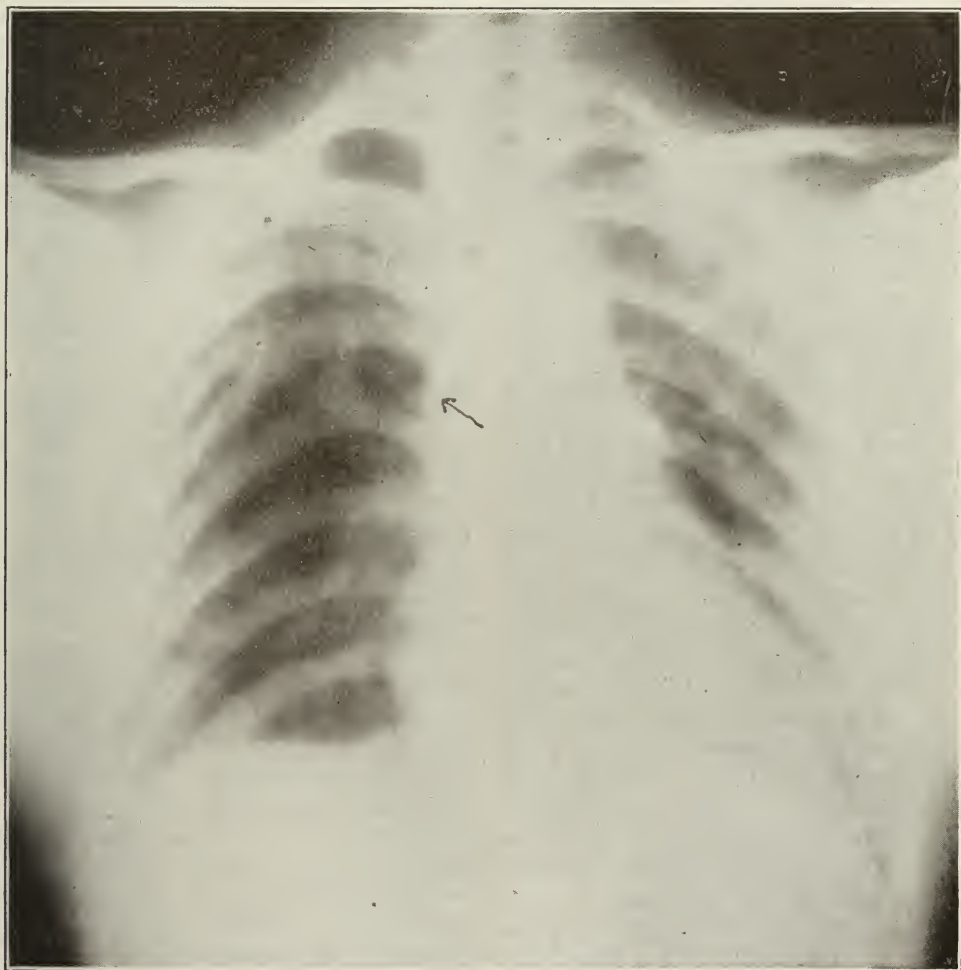
On December 18th she complained of sharp pains in the middle of the back, mostly on the left side, aggravated by deep breathing. One week previously she had experienced some slight pain on that side but paid little attention to it. At the time of examination there were sharp

From the clinic of Internal Medicine, University of Michigan, George Dock, M. D., Director.

stinging pains which became severer on the slightest movement of the patient. She had felt weak all the morning and somewhat chilly. Ate no dinner. Temperature 100° F., pulse 103, respiration 23(?).

Face was flushed; eyes bright. Accessory muscles moved on breathing. Mucous membranes

column, rising higher in the mid-scapular line. There was no paravertebral dulness. The breath sounds were distant but the harsh vesicular breathing was clearly audible. A to and fro rub was heard, loudest just inside the angle of the scapula. The spoken and whispered voice sounds were inaudible low down. They were not in-



were negative. Thorax was well formed, of normal length and good depth. Motion of left side somewhat limited. No bulging of interspaces. Litten shadow about three centimeters on the right side; absent on the left. Traube's space was obliterated. Dulness in the flanks extended to the seventh rib, and around to the vertebral

creased above the line of dulness.

Dry cups were applied and large doses of salol administered. She was put upon liquid diet and an ice-cap applied. The patient rapidly improved and signs of the effusion soon disappeared.

As soon as opportunity permitted a careful examination of the chest was made. The left side



expanded less than the right. The left apex was about one-half centimeter lower than the right and the percussion note slightly higher pitched. The vesicular breathing was markedly diminished and the expiration was prolonged. The whispered voice was better heard on the left side down to the first interspace. A few crepitant supra-clavicular fossa.

and sub-crepitant rales were heard in the left. There was a slight cough occurring mostly in the morning. No other symptoms. The sputum was copious in amount and contained many alveolar and epithelial cells. No tubercle bacilli found after several examinations.

At this time the patient was able to be taken from her room and a radiograph was made. In addition to the slight density of the left apex, the presence of an additional rib on the right side was seen. All the pairs of ribs were normally attached and articulated with the vertebral column. Springing from the upper surface of the sixth rib, about seven centimeters from the median line, a small protuberance could be seen. Joining this by what appears to be a separate and distinct articular surface, an accessory rib springs and courses downwards and around the thorax between the fifth and sixth ribs. Its course in the anterior part of the body cannot be seen. On examination of the sternal articulations each rib joins separately. Moreover, there is no fusion of costal cartilages. Still the ribs on the right side lie much closer together anteriorly and apparently there is one more costochondrosternal joint on the right than on the left side.

The left side has no structure corresponding to the extra rib. Moreover,

there are twelve distinct ribs on the left and thirteen on the right. This can be easily demonstrated on the radiograph or on the patient herself, where the ribs are easily counted. On palpation of the back, on the right side just within the angle of the scapula, a small protuberance can be felt, but the extra rib coursing from it is not palpable.

It would be difficult to explain the formation of this anomaly on any other basis than that of a cleft. Early in the formation of the sixth rib when it existed merely as a small protuberance, a longitudinal cleft must have occurred which extended as the development of the rib proceeded. Finally, when ossification set in, the divided rib took its position between the true fifth and sixth ribs. Whether a simple diarthrosis exists between the head of the extra rib and the tubercle arising from the sixth rib, can only be conjectured. From the distinctness of its outline and from its shape it would appear as if a ball and socket joint had developed to allow for freedom of motion with respiration, inasmuch as the direction of the articular surfaces differs from that of any other in the thoracic cage.

The anomaly is an unusual one and finds no exact counterpart in medical literature. It is only with the X-ray that the diagnosis of such a condition is possible ante-mortem, for physical examination does not often lead us so minutely into the close inspection and palpation of the bony framework.

I am indebted to Mr. Vernon J. Willey for the excellent radiograph which he placed at my disposal.

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## The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to B. R. Schenck, M. D., Editor, 502 Washington Arcade, Detroit, Mich.

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OCTOBER

### Editorial

**Medical Organization and the Insurance Companies.** Medical organization has accomplished much during the last five years, but we are, nevertheless, just beginning to realize the immense influence which a united profession can exert, provided only that the influence be directed toward things which are right and just.

When certain of the old line life insurance companies, in their campaign of economy, reduced the fee for examinations from \$5.00 to \$3.00, an undoubted injustice was done, not only to the physicians who make the examinations, but also to the policy holders of the companies. Doubtless the ordinary examiner will make as complete and thorough an examination for the lower fee as for the higher, providing he consent to continue—an argument which the companies have repeatedly used—but that, it seems to us, is not the point. The reduction in the fee results and has resulted in the resignation of good men all over the country and the employment in their places of men who are inferior, men at least who put a lower valuation on their services, which in ninety per cent of the instances means inferior men.

That the companies should dictate the fees which the profession shall receive naturally aroused much indignation, and resulted in a protest so widespread that

several companies have apparently been convinced of the injustice, or perhaps poor policy, of the reduction and have returned to the old schedule. Recently the Equitable Assurance of New York, the Union Central of Cincinnati, the Fidelity Mutual of Philadelphia, and the Mutual Life of New York, have restored the old fees. The letter of the Mutual Life is as follows:

New York, July 23, 1907.

Circular No. 88.

*Dear Doctor:*—I am glad to announce to the Medical Examiners of the Company that on and after Aug. 1, 1907, the company will pay a fee of \$5 for each completed examination for new insurance, irrespective of the amount of insurance applied for.

This has been rendered possible by rigid economy in other directions, whereby a saving in the expense of obtaining new business has been effected of sufficient size to warrant this step.

All extra allowances for mileage, obtaining additional information, urine, etc., will be abolished, beginning August 1. The fee for a microscopical examination of the urine will be \$5, as heretofore, but this will only be made when directly called for by the company.

The fee for a certificate of health for the restoration of a lapsed policy will be \$2 unless a full examination is called for, in which case it will be \$5.

Very truly yours,  
BANDRETH SYMONDS, M. D.,  
Medical Director.

In order that our readers may discriminate between \$5.00 and \$3.00 companies, the following list of \$5.00 companies, doing business in Michigan, is appended. This list has been compiled from good authority, but we shall be glad to make a note of any errors which may exist:

Aetna, Hartford.  
Berkshire, Pittsfield.  
Connecticut Mutual, Hartford.  
Equitable Assurance, New York.  
Fidelity Mutual, Philadelphia.

Manhattan, New York.  
 Massachusetts Mutual, Springfield.  
 Mutual, New York.  
 Mutual Benefit, Newark.  
 National, Montpelier.  
 New England Mutual, Boston.  
 Northwestern Mutual, Milwaukee.  
 Pacific Mutual, San Francisco.  
 Penn Mutual, Philadelphia.  
 Phoenix Mutual, Hartford.  
 Provident Life and Trust, Philadelphia.  
 Reliance Life, Pittsburgh.  
 State Life, Indianapolis.  
 State Mutual, Worcester.  
 Sun Life Assurance, Montreal.  
 Union Central, Cincinnati.  
 Union Mutual, Portland, Me.  
 United States, New York.



**Repeaters in medical literature** are common to a certain class of medical journals, which take no pains to reserve their pages for original or exclusive articles. By *repeaters* we mean the publication of a paper in numerous journals, thus assuring a wide circulation. Physicians of skill and wide reputation have occasionally indulged in this practice, but those who are most careful avoid it. Moreover, the best medical publications will print articles only when assured that they are not to appear or have not appeared in other journals. Even with this restriction there is no dearth of medical writings. Every article presenting original matter is indexed in the library of the Surgeon-General's office at Washington. There it is best known who are the men perpetrating repeaters and which are the journals fostering them. Editors who look over their exchanges carefully have also the same knowledge.

There is probably no intrinsic wrong in multiple publication of one article; if a man desires the advertisement, he undoubtedly has a right to it. But intrinsic right and wrong do not rule men's opinions and there is a feeling abroad

that the practice of repeating is not of a high moral order. Those who are guilty of it sometimes have difficulty in offering their wares to the best periodicals. On the part of editors, great caution is observed and much work is necessitated in keeping their pages free from such repeaters. Therefore, it would seem that, for the sake of both the author and the editor, this undesirable habit of repeating should be abated.



**Apropos of the optometry bill** which was introduced in the Michigan legislature last spring, and which was not reported out by the Committee on Public Health, the action of Governor Hughes, of New York, in vetoing a similar bill is of special interest. As in our own state, the matter had been up at successive sessions in New York and the bill defeated either in committee or on the floor. This year, however, despite the strenuous objection of the legislative committee of the state medical society, the optometry bill was passed. Governor Hughes, however, vetoed the bill, and in doing so, filed the following memorandum:

It is the intent of this bill that the board of examiners in optometry, to be appointed by the Board of Regents, shall be selected from those nominated by the Optical Society. It is also provided that the prescribed course of professional study in schools of optometry shall be had in such schools as maintain a standard satisfactory to the board of examiners. These provisions remove from the jurisdiction of the Board of Regents matters which it is important should be placed in their control. If the practice of optometry is to have the recognition and regulation contemplated by this bill the appointment of examiners should not be limited to those nominated by a particular society, and the determination of the standards of professional schools should be unequivocally left to the proper state authority. This is the policy established by the law enacted this year regulating the practice of



medicine, and in my judgment it is unwise in legislation along similar lines to adopt a different principle.

(Signed.)

CHARLES E. HUGHES.



The Surgeons of Grand Rapids are to be congratulated upon the action taken, at a recent meeting, to abolish the pernicious practice of the division of fees. Likewise are the physicians and the public as well to be congratulated. We are not aware that this practice has been any more prevalent in the second city of the state than elsewhere, but that it exists there, and exists to the extent requiring forceful means for its checking, is evident from the action taken.

The following letter has been received:

Grand Rapids, Sept. 14, 1907.

To the Editor:

At a meeting of about twenty of the leading surgeons of this city, held in the Morton House, Sept. 6, 1907, the following resolution was adopted and signed by every person present:

"We, the undersigned, practitioners of surgery, in the city of Grand Rapids, do hereby mutually agree that in the matter of operative fees, we will each and severally make our own charge to the patient, leaving to the physician who refers the patient the privilege of determining his own fees, with the understanding that the patient shall definitely know the charges of the operating surgeon and all the physicians concerned. We do also hereby agree that there will be no percentage, division or rebate of the operating surgeons' fee to the physician referring the patient."

Five hundred copies of the above were ordered printed for distribution by each surgeon to his physi-

cian friends for whom he is accustomed to operate. Printed copies, suitable for framing and hanging in the office, were also ordered. This expresses our opinion and places the surgeons of Grand Rapids on record regarding their position on the "Division of Fees Question."

A report of this meeting was ordered sent to the Journal of our State Society and also to the Journal of the American Medical Association.

Respectfully yours,

F. A. WARNSHUIS,

Secretary of the Meeting

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## Book Notices

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**Modern Medicine: Its Theory and Practice.** Edited by William Osler, M. D. Assisted by Thomas McCrea, M. D. In seven octavo volumes of about 1,000 pages each; illustrated. Volume II, 828 pages, \$6.00 net. Lea Brothers & Co., Philadelphia, 1907.

The second volume of this splendid system maintains the high standard set by the first, which was reviewed in our June issue. The present volume covers the infectious diseases in 39 chapters, each subject being treated by a well known authority on the subject.

Hektoen writes an introduction of 70 pages covering the strictly microparasitic infections. The agents of infection, their manner of entering the body, their elimination, and their effect upon metabolism are some of the subjects fully discussed. Hektoen then takes up immunity and serum therapy, setting forth these difficult problems in a particularly clear and concise manner.

McCrae, the associate editor, writes five chapters, covering 160 pages, on typhoid fever and one chapter each on typhus and relapsing fever. The discussion of typhoid is complete and eminently practical. Particular attention is given to prophylaxis and treatment. The stamping out of this disease is one of the great tasks now before the profession and every physician practicing where typhoid prevails, should read the forceful sections which McCrae has written on this subject. It is no exaggeration to say that these

160 pages form the best monograph in English on typhoid.

The section on small pox is by Councilman, in whose laboratories most important studies were made during the Massachusetts epidemics of 1901 and 1902. There are excellent illustrations showing the pathology and the various stages of pustulation.

The chapter on vaccination by Doek is especially interesting and valuable. The results which have followed its use are set forth in a most convincing manner; even Fra Elbertus could not but be moved by the array of facts and statistics. The article contains many important practical points.

Few men in America have had greater experience with scarlet fever than McCollom, whose chapter on the subject as an excellent one. "The prognosis depends very considerably on the complications and not on the disease itself, except in the fulminating type;" hence particular attention has been given to the treatment of these complications. The section on diphtheria is also from the pen of McCollom. We wish that the chart on page 431 could be reproduced in every newspaper in America. It shows the mortality in the Boston City Hospital from 1888 to 1894, when no antitoxin was given—37 to 49 per cent—against 8 to 14 per cent during the antitoxin years of 1895 to 1904.

The two chapters on lobar pneumonia by Musser and Norris are among the best in the book.

Acute rheumatism from the pen of Poynton of London is included among the infectious diseases. The newer work on etiology is fully treated.

James Carroll contributes a most interesting chapter on yellow fever, and Calvert one on plague.

Other chapters are Measles, Rubella, the Fourth Disease, and Erythema Infectiosum, Whooping Cough and Mumps by Ruhrah; Influenza by Lord; Dengue by Coleman; Erysipelas, by Anders; Septicemia and Pyemia by Pearce; Cholera by Dunbar; and Dysentery by Shiga.

If the completed work fulfills the promise of the first two volumes, it will indeed be a great addition to medical literature.

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**The Principles and Practice of Dermatology.** By William Allen Pusey, A. M., M. D., Professor of Dermatology in the University of Illinois. Octavo, pp. 1021; 367 illustrations; cloth, \$6.00. D. Appleton & Co., New York, 1907.

For a number of years Pusey has been a teacher of recognized authority and a favorite with all who have been fortunate enough to attend his lectures and clinics. On account of his early, thorough and enthusiastic work on Radiotherapy and Roentgentherapy, he has become one of the best known dermatologists of the country. The appearance of his book is therefore of particular interest.

The work opens with a section of 165 pages on the principles of dermatology. Anatomy and physiology are fully treated, and etiology, pathology, symptomology, diagnosis, treatment, and classification receive due attention. The chapter on pathology is especially good and that on treatment sets forth the latest advances, even to a consideration of Wright's opsonic method. Numerous prescriptions, found useful by the author, are given. This section on treatment comprises over 50 pages.

Regarding classification, the author says: "Given, approximately, 300 diseases of more or less uncertain pathology; arrange them in groups according to their pathological characteristics. It goes without saying that no one has been able under these conditions to produce a perfectly satisfactory solution of the problem." The author closely follows Unna's classification.

The major portion of the work deals with the Practice of Dermatology. The descriptions of the various diseases are especially good, constituting vivid pen pictures of the lesions. The illustrations are largely original and for the most part as good as half tones can be made.

Two of the most important chapters are also the best—those treating of eczema and syphilis. The latter is especially well illustrated. Our space forbids a more detailed review, but it may be justly said that the book is a credit to author and publisher alike and a distinct contribution to medical literature.

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**A Manual of Clinical Diagnosis by Microscopical and Chemical Methods.** For students, hospital physicians and practitioners. By Charles E. Simon, M. D., Professor of Clinical Pathology in the Baltimore Medical College. Sixth edition, revised. Octavo, 682 pages, with 177 engravings and 24 colored plates. Cloth, \$4.00 net. Lea Brothers & Co., New York and Philadelphia, 1907.

The author refers to his book as the "pioneer work in America" on this topic, and the preface to this, the sixth edition, mentions the changes necessitated since the first issue. The increased

interest in Clinical Diagnosis is well exemplified by the presence on the market of no less than four separate American volumes covering the whole subject, to say nothing of the numerous others limited to special fields, such as urinalysis and hematology. Simon's book contains the usual headings, including Blood, Secretions of the Mouth, Gastric Juice, Feces, Nasal Secretions, Sputum, Urine, Exudates, Cerebrospinal Fluid, Cystic Fluids, Semen, Vaginal Discharges, Milk, and Opsonins. There is an appendix describing the preparation of culture media and another giving an outline of a course in clinical microscopy.

It is remarkable how several books may cover the same ground and yet give such different impressions; Simon seems to be at great pains to describe minutely all procedures and conscientiously to set forth the chemistry, so far as possible. The views of different men on debated subjects are given, with usually the author's opinion to help. On the other hand the interpretation of laboratory examinations is not so thoroughly expounded and there is seldom a complete presentation of the laboratory findings in a given disease. For instance one must take great trouble to find out what the blood shows in leukemia and how the various leukemias differ from one another.

If a reader wishes to learn how to conduct a given test, what the chemistry of that test is, and what is its value, Simon's book is an excellent one to consult. It is probably more completely up to date than any other, and has all the advantages accruing from competent authorship, convenient arrangement, and good book-making. The index, like so many others, is inadequate; for example, one cannot find in it the names of common diseases, nor the names of men who have illuminated the various subjects, nor is there an index of illustrations, many of which, by the way, are excellent, especially the colored plates. It is convenient to find bibliography at the foot of each page.

The general effect of the volume is good beyond question; there is completeness, accuracy, and proportion, with enough of the writer's personality to lend interest.

of 775 pages, with 482 original illustrations, 15 in colors. Cloth, \$6.50 net. W. E. Saunders Company, Philadelphia and London, 1907.

Inasmuch as diagnosis is the most important branch of practical medicine, good books on the subject should always be welcome. This work by Eisendrath is a good book, because it approaches the subject of clinical diagnosis of surgical conditions in the proper manner. The author has made his groupings logically, presenting the problems in much the same manner as they come up for consideration at the bedside. Especial emphasis has been laid throughout on early differential diagnosis and some excellent tables setting forth the differential points in closely allied diseases are given.

There are few subjects in medicine in which illustrations can be used to better advantage than in surgical diagnosis, and this book is the best illustrated of any in its line. The illustrations are numerous, well chosen and particularly clear.

The text is comprehensive and well written.

The book can be especially recommended to those who have limited means for observation. The time consumed in not only reading it, but also in studying it, will be well spent.

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**The Practice of Pediatrics.** By American and English authors. Edited by Walter Lester Carr, M. D., Visiting Physician to the Infants' and Children's Hospital, New York, etc. Octavo, 1014 pages; 199 engravings and 32 full-page colored plates. Cloth, \$6.00. Lea Brothers & Co., 1907.

During the past two years there have appeared an unusually large number of books on children's diseases, many of which have been reviewed in this department. In our judgment the present volume is one of the best of these recent works.

There are several features which make the book attractive and valuable. Among them may be mentioned an unusually large space devoted to the growth and development of the new born infant; chapters on infant feeding which, from the standpoint of the general physician, are especially clear and concise; editorial work which is unusually good, rendering the work of the authors systematic and molding the whole into a complete and comprehensive volume.

The list of authors contains a large number of well known names. They are Abt, Bovaird, Crandall, Davis, Jennings, McCarthy, Nicoll, Poynton, Riviere, Ruhräh, Southworth, Tuttle and

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**Surgical Diagnosis.** By Daniel N. Eisendrath, M. D., Adjunct Professor of Surgery in the Medical Department of the University of Illinois (College of Physicians and Surgeons). Octavo



Yale. The illustrations are excellent.

The book completes the Practitioner's Library of Gynecology, Obstetrics and Pediatrics, the other two volumes being Bovee's Gynecology and Peterson's Obstetrics, both of which have been reviewed in this department. They are well printed on excellent paper and attractively bound in dark green cloth. The volumes are sold separately or in sets.

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**A Manual of Personal Hygiene: Proper Living upon a Physiologic Basis.** By eminent specialists. Edited by Walter L. Pyle, M. D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. Third revised edition. 12 mo. of 451 pages, illustrated. Cloth, \$1.50 net. W. B. Saunders Company, Philadelphia and London.

There is no dearth of popular books on hygiene, but most of the so called "guides of health" are of questionable authorship or are written to exploit some particular fad. It is therefore a pleasure to recommend this book, written by well-known men and edited by Pyle. While it has been prepared especially for the laity, every physician will find in it many useful hints. The information is well systematized and an excellent index adds to the value.

It may be recommended to one's patients as the best book of its kind.

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**Diseases of the Rectum: Their Consequences and Non-Surgical Treatment.** By W. C. Brinkerhoff, M. D., Chicago. 207 pages. Cloth, \$2.00. Urban Publishing Co., Chicago, 1907.

This cheaply printed book deals principally with the injection treatment of hemorrhoids. It is apparently written for the laity as an advertisement for the author's method. Results are dwelt upon at length; details of the method, as for example the composition of injected fluid, are withheld. The list of those using this method is remarkable for the large number of men, unrecognized by the profession, which it contains.

The book ends with a chapter on "The Legal Limitations of Medical Practice," which betrays the author's position.

The book is of very little, if any, value.

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## County Society News

### CALHOUN.

The third quarterly meeting of the Calhoun County Medical Society was held in Marshall,

September 3. Twenty-three members were in attendance.

Dr. A. J. Read gave a profusely illustrated paper and demonstration on "Food Adulterants and Their Detection."

Dr. George C. Hafford, recently returned from Rochester, Minn., gave a very interesting talk on the Mayos and their work.

Seven new members were admitted to the society, bringing the total membership up to 79.

The annual meeting will be held in Battle Creek, December 3rd. Drs. Alvord, Zelinsky and Kimball were appointed a committee to make arrangements for the banquet.

A. S. KIMBALL, Sec'y.

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### HOUGHTON.

The regular monthly meeting of the Houghton County Society was held at the Douglass House, Houghton, September 2.

Dr. S. S. Lee, of Opechee, read a very instructive paper on "Diagnosis, Prognosis and Treatment of Hydrocele."

The annual election of officers then took place, which resulted as follows: President, Dr. W. P. Scott, Houghton; vice-president, Dr. W. T. S. Gregg, Calumet; secretary-treasurer, Dr. W. T. Whitten, Baltic; censor for three years to succeed Dr. E. T. Abrams, of Dollar Bay, Dr. A. I. Lawbaugh, of Calumet.

W. D. WHITTEN, Sec'y.

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### JACKSON.

The regular meeting of the Jackson County Medical Society was held at the Y. M. C. A. building on the afternoon of Sept. 5, 1907. The program consisted of papers and discussions concerning pulmonary tuberculosis. Dr. Frank Smithies, of the University of Michigan, discussed the Diagnosis of Beginning Pulmonary Tuberculosis; Dr. P. M. Hickey, of Detroit, presented Roentgenographs of tuberculous and other conditions of the chest; and Dr. W. E. Coates, of Onkama, gave a paper on the "Modern Treatment of Tuberculosis." The meeting was attended by a larger number of members than any before for many months, which fact coupled with the very able program made the afternoon a very profitable one for the society.

The society has purchased and distributed to each of the members, to other physicians of the county and to the clergymen of the Ministerial Association copies of the A. M. A. reprint of the "Great American Fraud." Each physician was also supplied with a copy of the Propaganda for Reform in Proprietary Medicines.

Last June the society held a public meeting to consider the milk supply of Jackson, as was reported in the Journal for July. The committee appointed at that time reports very gratifying results. Two of the larger dairies have taken up the work and are following the instructions of the committee in a very satisfactory way. Before the committee began work samples of milk collected showed uniform filthiness, while at the present time samples taken from the wagons of the "certified" dairies are remarkably clean, showing a surprisingly low bacterial content, at the same time maintaining a high physical quality. The certified dairies are obliged to charge but a very slight advance over former prices.

The post-graduate work of last season was so successful that steps are being taken to inaugurate the course for this year very soon on a somewhat larger scale, and extending over a longer period of time.

T. S. LANGFORD, Sec'y.

#### LENAWEE.

The Lenawee County Society held its August meeting at Devil's Lake, August 13th. The members and their wives arrived early in the day and welcomed guests from Hillsdale and Jackson Societies as both counties had been invited to meet with the Lenawee society.

A special dinner was served, after which the members gathered in a large hall for business, while the ladies were entertained with a boat ride on the beautiful lake.

Dr. Hafford, of Albion, gave a splendid paper on "The Patent Medicine Evil."

Dr. Eccles maintained his good reputation, with a paper on "Some of Our Mistakes and How to Remedy Them."

Dr. Colbath gave a very elaborate paper, "The Normal Stimuli of Peristalsis is Mechanical in the Treatment of Chronic Constipation."

The papers were well discussed, the members from Jackson and Hillsdale and Dr. Barrett, of Chicago, taking a lively interest in the discussions and giving us some good points.

After the regular program, a good social time followed.

The arrangements at the lake were in charge of Past President Dr. Town and every one present was well pleased with his effort to entertain us and will be happy to meet again at the same place.

J. C. JOHNSTON, Sec'y.

#### SHIAWASSEE.

The regular monthly meeting of the Shiawassee County Medical Society was held in the city of Owosso September 3. Eight members were present.

The name of Dr. Robt. C. Fair, of Durand, was suggested as a candidate for the vacancy on the board of county poor commission and the society pledged its support toward his election.

Dr. Flemming Carrow, of Detroit, gave a very instructive talk on "Ulceration of the Cornea."

Dr. T. N. Yeomans, of Bancroft, read a very interesting paper about his recent trip through the western states.

JAMES A. ROWLEY, Sec'y.

### Correspondence.

#### AN APPEAL TO THE AMERICAN MEDICAL PROFESSION.

BY S. A. KNOPF, M. D.  
New York.

On May 8, the day following the meeting of the National Association for the Study and Prevention of Tuberculosis, there appeared in the *North American* of Philadelphia a most sensational article by Mr. Richard J. Beamish, according to which, during the discussion of Dr. Flick's report on medication, I was reported to have advised the killing of dying consumptives quickly and painlessly by heavy doses of morphine, and to have admitted that it was my daily practice to do so. It was furthermore said in this article that there had been a bitter debate and that the session adjourned in confusion. These false statements were copied by nearly all the newspapers in the United States, were cabled to Europe and made the rounds in the papers and magazines of England and the whole European continent. In spite of explanations and denials I had sent to the Associated Press, in spite of a strong letter writ-

ten by Dr. George Dock, the presiding officer of the meeting and sent to the leading medical journals of America giving the true version of my remarks, the false statement has continued to be published and republished and commented upon to the great detriment of the anti-tuberculosis crusade all over the world. For example, ignorant consumptives in St. Louis who had read the sensational lie refused the visit of the nurses sent to them by the Society for the Relief and Prevention of Tuberculosis. The *St. Louis Republic*, which published this news item, said: "Consumptives since they read that report apparently have a dread that the visit of the nurse may mean morphine to end their suffering." It became thus necessary to issue the following statement by order of Prof. Frank Billings, president of the National Association for the Study and Prevention of Tuberculosis:

"Various daily newspapers published on May 8 what purported to be a report of the remarks of Dr. S. A. Knopf, of New York, before the National Association for the Study and Prevention of Tuberculosis, in which he was made to say: 'It is my practice and your sacred duty when you see a dying consumptive before you to give the sufferer morphine in plenty, that the end may come quickly and painlessly.'"

"No such statement was made by Dr. Knopf, but since, in spite of an immediate explicit denial by the doctor, a great many newspapers in this country and Europe continue to publish the false report as authentic news, Dr. Frank Billings, of Chicago, president of the National Association for the Study and Prevention of Tuberculosis, authorizes the following statement:

"'Quite apart from the false position in which the speaker was placed and the injury done him, the publication of such a piece of sensationalism cannot fail to have a very deleterious effect upon impressionable tuberculosis patients throughout the country, and may keep others from seeking needed medical aid.'"

"The following statement made by Prof. George Dock, of the University of Michigan, who presided at the meeting in which Dr. Knopf spoke, should preclude all further misunderstanding:

"I heard clearly what Dr. Knopf said. I am sure that I know what he meant, and I am sure that everybody in the room must have understood what he said. His words could not possibly be converted into the meaning given in the public press. It was perfectly clear that he meant to

relieve patients in the last stages. Everybody knows this prolongs life, while making it very much easier for the patient.'

"LIVINGSTON FARRAND,  
"Executive Secretary."

I had hoped that this statement would put a stop to all further comments on and circulation of the sensational falsehood. I am free to confess that I have longed for the time when the lie would die out, for, in spite of the loyalty manifested by my professional friends during these hours of trial, for which I beg them to accept my most heartfelt thanks, the ordeal had become almost unbearable.

It seems that such a lie dies hard and from time to time receives a new stimulus from the overzealousness of some physician or layman. Thus, for example, through the courtesy of Dr. George H. Simmons, the editor of the *Journal of the American Medical Association*, I received a copy of the *Kansas City Journal* of last week, containing an editorial under the heading, "Should Doctors Kill?" from which I quote the following:

"The question whether a physician is justifiable in shortening the life of a patient suffering from an incurable disease by administering anesthetics was given a fresh impetus recently by the declaration of Dr. S. A. Knopf before the Tuberculosis Congress in Washington, advising that consumptives should be given hearty doses of morphine to hasten the end. To the credit of the profession it must be said that physicians generally repudiate the idea as atrocious and a violation of medical ethics. A Chicago physician, Dr. Charles Gilbert Davis, voiced this sentiment, saying: 'A physician who would make a statement of that sort should be taken out and hanged. The profession has not gotten so low that it must commit murder just because it has not discovered a cure for some disease. There is nothing incurable under the sun. Just because the cure has not been discovered that does not mean it never will.'"

In Dr. Dock's letter above referred to, as well as in the statement authorized by Dr. Frank Billings, the absolute falsehood of the respective newspaper reports was clearly shown, and it would seem that there was hardly an occasion for Dr. Davis to unburden his feelings for the benefit of the lay press.

Equally untrue was the report of the alleged "adjournment in confusion" and the "lively and bitter debate" which followed Dr. Flick's report



condemning the use of morphine and its compounds. In refutation of this reflection made by Mr. Beamish on a body of scientific men, composed of many of the leading American physicians who have devoted their lives to the study and prevention of tuberculosis, permit me to publish for the first time an extract from a letter which was received recently from Dr. Joseph Walsh, the secretary of the section:

"I was present as secretary of the section at which you spoke, and instead of the section breaking up in confusion, as was stated in the newspapers, the section closed in the perfectly regular way, and your statement as generally understood by the medical men seemed to be generally agreed with."

I beg the medical press of the United States to copy this communication in the hope that it will help individual members of the profession to refute once for all the inconceivable proposition that any physician true to his calling could possibly propound such a doctrine as shortening the life of any patient entrusted into his care. To the individual members of the profession in this country and abroad I address a personal appeal to embrace every opportunity to disabuse any individual who may labor under the misapprehension that I or anybody else of the American medical profession recommended shortening the lives of consumptives or any others by the administration of chloroform, morphine or similar narcotics. I make this appeal not merely for my own sake, but, above all, for the sake of truth and for the sake of consumptive sufferers in this and in other countries.

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Edinburgh, September 4, 1907.

To the Editor:

Thinking that some of the surgical methods here might be of interest to the Michigan members of our profession, I append them.

Mr. Harold J. Stiles is doing excellent work at the Royal Edinburgh Hospital for sick children, at Chalmers Hospital and at his own private hospital. The work done at the first two institutions is entirely gratuitous and he gives to it from two and one half to three hours daily, four days each week. His method of operation is direct and simple, and the opposite of "fussy." He is not what might be called a rapid operator, but a very expert one and does a large number in a given time. The operating room is kept at a

temperature of about 72°. After the larger number of his operations, he uses no dressing whatever, merely dressing the wound with iodoform moistened in a bi-chloride solution. In the case of babies and children, they are prevented from handling the wound by a band with two armholes passed over the chest; then a tape is slipped through the armholes under the shoulders and fastened to the crib or cot at either side. Each ankle is wrapped with cotton and fastened to the side of the cot by a slip noose of gauze. The child can move about considerably without disturbing the wound. The results of this form of dressing are uniformly good. The wound is perfectly dry and healthy from the beginning. Mr. Stiles or his assistants do not wear gloves. He asserts that he has never found it necessary or desirable and further that he can do cleaner work without the clumsiness that would affect it were he to wear gloves. His methods of sterilizing the field of operation and his hands are very simple, and alike in every respect, except that he uses a brush on his hands and nails, but never on his arms or on the patient's skin. The surface is thoroughly washed with a solution of liquid soap and spirits in equal parts, for perhaps ten or fifteen minutes, then with a one-half to one per cent lysol hot water solution and lastly with a one to sixty carbolized solution. He does not believe in a moist bi-chlorid pad over night because it makes the skin soft and sodden. The patients are taken directly from the operating room to the room, or ward, with open windows or doors where a temperature of 50° Fahr., and lower, prevails at this time. I have never seen an operator who possessed the facility that Mr. Stiles has of showing so clearly the operation step by step, so that when it is finished one has a thorough comprehension of his method.

Several other men here are doing excellent surgery, notably Mr. Annandale, who is Lister's successor, Mr. Thompson, Mr. Lewis, and Mr. Bremis.

I have found the surgeons here a most able, genial and approachable lot or gentlemen who seem to derive pleasure in showing and explaining their work and when I leave Edinburgh, it will be with a thorough appreciation of the opportunities given the seeker of surgical knowledge.

I have met many American physicians and surgeons over here from nearly every state who are getting a needed rest from their professional

work and learning the methods of our co-workers in the old world.

O. S. ARMSTRONG, M. D.

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Vienna, August 23, 1907.

To the Editor:

The medical visitor of Vienna is, by right, well pleased with the large material of the General Hospital (*Allegemeines Krankenhaus*) and not less with the thoroughly scientific and practical manner in which patients are treated. Yet, in the general hospital, only people without proper means are received, and, necessarily, the hospital presents an appearance different from that generally seen in the United States. It may be mentioned that the venerable hospital in which, for many years, many a man from many a country has received instruction of incalculable value, is doomed, and already new, modern buildings are erected nearby and others are soon to follow. The old complex of buildings and the amiable and democratic Viennese relations, not only between teacher and student, but also between patient and physician, has become dear to everybody, so that we sincerely hope that the future may see a change in the outer appearance of this glorious cosmopolitan medical center, but that the old spirit may remain the same.

The physician who visits Vienna is, of course, interested to learn where the Vienna physicians treat their private patients. Only a few minutes' walk brings us from the general to one of the private hospitals of great reputation, in which the patients are treated by their own physicians and surgeons, although the superintending physician and several assistants may participate in the treatment to the extent demanded by the patient's own physician. In a wing of this hospital of one hundred and ninety beds, called the "Wiener Sanatorium—Anton Loen," Prof. von Noorden has his department for private hospital patients. As I had heard for years much about the place, I visited a part of it, namely the newly built annex for obstetrics and gynecology, which contains thirty beds. The quiet elegance of the building, the modern construction and, especially the introduction of some new appliances, besides the ingenious utilization of old principles, make this building appear to me as the, perhaps, most perfect institution, which I have had so far the privilege to see. No physician should neglect to pay a visit at least, to the working rooms of this

department. Of the details may be mentioned the following. The wash basins in the rooms adjoining the operating rooms are only used to receive the water which has passed the hands and forearms and they have a free outflow into a small gutter on the floor near the wall. Hereby a complicated structure is avoided and an obstruction is absolutely prevented. The faucets, of course, are not touched with the hands. One lever regulates the temperature of the spray which seems to be much more practical than the solid stream to which we have been accustomed. Sterilized metal boxes on each washstand contain the sterilized brushes which have gone through the centrifuge. The fact that a sterilized box has been used is made known by the absence of a ring that had to be removed to open the box. The boxes in which sterilized towels, etc., are kept are opened by the aid of a pedal and close by themselves. The lights in the operating rooms, I was told, produce an excellent diffuse illumination at night time. Under the whole glass case which contains the lights, a considerably larger glass plate is attached so that the heat is lessened and asepsis secured. The walls of the operating room are covered with white marble. The appliances for sterilization are equipped with a steam removing fixture so that no steam may enter the operating rooms proper. The principle is generally applied that the hands are not used to open boxes, etc. The sterilizing cases with their numerous subdivisions are rather large. Besides the instruments, the bottles with the saline solution, etc., a large kettle containing bowls and basins can be sterilized. In the obstetrical room two things engaged my attention more than others. One of them is the bath tub, which can be sterilized and which represents the fruit of considerable efforts. The patient is moved directly on a frame on top of the bath tub and the whole frame is gradually lowered so that no discomfort is encountered with the bath. It is called the aseptic submergeable bath tub.

The other feature is a bed, an invention of Dr. Lindenthal. This bed permits procedures on the patient without moving the patient and without disturbing her in her old position. On the first look the bed does not seem to be different from any other bed. In a few moments, however, the lower end of the bed, somewhere between the middle of the bed and the foot end, somewhat nearer to the center, can be unhitched and the distal end can be put aside, footrests can be

moved quickly into the proper position and the forceps can be applied on the patient, who now lies on an operating appliance. In the room for the infant, I noticed an ingenious apparatus which serves to regulate the moisture of the room.

The carpets, wallpaper and furniture in the social rooms can be washed and yet, in their appearance they would do honor to the most refined clubhouse. The mahogany furniture is prepared with a china-finish (Porcellanglasseur). The prices charged for room, meals and attendance seem to be reasonable in spite of the excellency of the equipment. Of course, the fee of the attending physician is a matter by itself. According to the circular, the daily expense for the patient amounts to 20-40 Kronen (about \$4.00 to \$8.00), according to the size and location of the room and the demands of the patient. There are no additional charges except for light and heat and for chemical, microscopical and bacteriological examinations which are charged at cost. Patients may bring their own midwives along if they wish. Accompanying parties are charged reasonably. Septic cases are not admitted. A garden lies between the buildings which constitute the sanatorium of which this annex is a part. The building and its equipment represent the results of the studies and experiences of many years, gained in the other parts of the institution.

EMIL AMBERG.

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## News

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The following Detroit physicians have returned from summer journeys to Europe: C. W. Hitchcock, Angus McLean, George McKean, H. A. Haggerty, E. W. Haas, A. H. Steinbrecher, H. R. Varney, T. A. McGraw, M. A. Fechheimer, A. G. Studer, G. E. Potter, H. I. Wallace, H. W. Longyear.

Dr. Duncan Patterson, of Copac, was recently elected a delegate to the State Constitutional Convention.

Dr. J. M. Peebles, of Battle Creek, has arrived home after a prolonged tour around the world.

Dr. V. C. Vaughan, of Ann Arbor, is a delegate to the International Congress on Tuberculosis, held in Vienna, Sept. 16.

Dr. A. G. Grumwell, for two years surgeon on the U. S. S. Wolverine, has been assigned to duty on the battleship Kentucky.

Dr. Leininger, of Gladwin, has returned from a three months' trip abroad.

Dr. A. P. Burroughs, of Galesburg, has given up practice there and will remove to Grand Rapids.

Dr. R. C. Allen, of St. Joseph, recently sustained an ugly head wound in falling from his bicycle.

Dr. J. W. Bosman, of Kalamazoo, has returned from a two months' trip in Europe.

The Sorsen Private Hospital in Calumet will in the future be under the supervision of Dr. A. I. Lawbaugh, of the Tamarack Hospital staff.

A hospital, consisting of three wards, operating room, and other usual conveniences, is being provided for the Michigamme mine, to be under the charge of Dr. Leon L. Goodnow.

The State Sanatorium for Tuberculosis at Howell was opened August 19, and seven patients were admitted. An additional building will at once be commenced.

Dr. Robert Wells, of Ann Arbor, has been appointed assistant physician at the State Hospital, Traverse City.

Dr. A. B. Gregory, Ann Arbor, has been appointed assistant to the chair of otolaryngology at the University of Michigan.

Dr. George Dock, of Ann Arbor, has returned from a vacation spent in Colorado.

Dr. H. Beach Morse has entered practice in Bay City.

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## Marriages

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Dr. Roger S. Morris, formerly first assistant in the medical clinic, at Ann Arbor, was married September 10, to Mrs. Mary Beasoe Carter. Dr. and Mrs. Morris will reside in Baltimore.

Dr. Hugh Dondna and Miss Ethel Cavanaugh, both of Lake City, were married August 21.

Dr. Henry Harrison and Miss Francis L. Tripp were married in Detroit, August 6.

Dr. Roy Bishop Canfield, of Ann Arbor, was married, August 6, to Miss Leila M. Harlow, of Boulder, Colo.



Dr. Walter S. Bell, of Elsie, to Miss Emily C. Hubbard, of Bellaire, at Traverse City, September 11.

Dr. Philip E. Moody, of Detroit, to Miss Fannie Stowell, of Lakewood, at the bride's home.

Dr. Robert Harper, of Detroit, to Miss Nellie Briggs, of Oxford, September 4, at Oxford.

Dr. John H. Charters, of Boyne City, to Miss Nellie D. Hansen, of Flint, September 11.

Dr. Charles J. Sorsen, of Calumet, to Miss Jerski Lang, of Finland, at London, England, August 26.

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## Deaths

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Dr. Nathaniel Wilbur Webber died in Detroit, August 30.

Dr. Webber was born in Gardner, Me., but removed to Chicago at four years of age, receiving in that city his preliminary and medical education. The latter was interrupted by active service during the civil war. Leaving the Northwestern University after two years of medicine, he took the position of hospital steward in the Third Colorado Infantry and was rapidly promoted to the positions of assistant surgeon and surgeon, the latter appointment coming after a successful examination. He served throughout Sherman's campaign and was once a prisoner of war.

After being mustered out of the army in 1865, he returned to Northwestern University and received his medical degree in 1866. In 1869, he came to Detroit and assumed the chair of anatomy in the Detroit Medical College. He later took the chair of gynecology in the Detroit College of Medicine, and at the time of his death was Professor Emeritus.

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A. W. Nicholson, M. D., of Newberry, died at his home on September 14, aged 63.

Cornelius W. Burrows, M. D., of Detroit, died of heart disease at his home on August 13, aged 68.

Francis J. Ducat, M. D., of Detroit, died suddenly in New York City, August 9, aged 39.

Charles J. Sorsen, M. D., of Calumet, died in London, England, of heart disease, Sept. 1, aged 37, only six days after his marriage.

Dr. Edwin Brumfield, of Jackson, a veteran of the Civil War, died at his home Aug. 4, aged 71.

Dr. John Bender, one of the pioneer physicians of Michigan, died September 11, at Lansing, aged 90 years.

He was born at Lancaster, Pa., April 4, 1817. He studied medicine and began the practice of his profession in eastern Ohio. In 1849 he was married to Mrs. Marie Whittaker of Pittsburg, Pa., and removed to Michigan the same year. He located at Adrian where he resided until 1867 when he moved to Lansing, where he had lived since.

The deceased leaves a wife, a son, Frank Bender, and three daughters, Mrs. Harriett Elliott, Mrs. Estella Willis and Mrs. Fred S. Lawrence.

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**Medical Co-Operation With Laboratory Work.**—In his chairman's address before the Section on Physiology at the late meeting of the American Medical Association, W. R. BIERRING, Iowa City, Iowa (*Journal A. M. A.*, July 10) remarks the need of a closer medical co-operation with general laboratory investigation, and notices the measures taken to this end in the newer buildings of the Pasteur Institute at Paris, in the new city hospital at Munich, and in the plans of the contemplated institute at Vienna. In the former, a well-equipped pavilion for infectious diseases has been added to the old institute and the new biochemical laboratory. The combined laboratory of experimental medicine, physiology, etc., of the Johns Hopkins University, as well as other institutions in this country and abroad are also mentioned, and the broader conception of pathologic research of the newer medicine is emphasized. There is, he says, still need to insist on the importance of continued medical co-operation as an essential in all investigative work if we would keep scientific medicine in this country on a par with that of the old world.

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Pneumothorax is very frequently of tuberculous origin, and is only rarely due to trauma.

For removing a portion of an enlarged uvula nothing compares with the forceps and scissors in efficiency. The tip of the uvula should be drawn slightly forward without strong traction, and the incision made upward and backward. The excision should be limited as much as possible to the mucous membrane, in order to avoid the marked irritation and pain which result when a raw stump of muscular tissue is left.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Passive Hyperemia in Acute Articular Rheumatism.**—STEINITZ, after a discussion of the drawbacks of the current salicylate therapy in acute articular rheumatism, gives in detail the results obtained from the application of passive hyperemia according to Bier's method in the Moabit Hospital last year, comparing them with those obtained formerly from the salicylate preparations.

There were in all, during the period in question, 100 cases treated in this service, not all of which were suitable for the application of this method. The bandages could not, of course, be used in affections of the hip or spine, and only occasionally in affections of the shoulder. Severe simultaneous involvement of a number of joints was also considered unsuitable for the treatment. Varicose veins were another contra-indication. Certain nervous patients proved unable to bear the application of the bandage. The continuance of severe pain after two applications was considered an indication for the administration of aspirin. In all, 81 cases seemed at the outset suitable for the treatment by hyperemia, and in 49 of them no other treatment was used.

A decided lessening of the pain occurred almost without exception—usually during and after the first application of the bandage, but sometimes not until after the second. It was observed that many of the patients slept better when the bandage was applied in the evening, and in several cases it was left on over night, though the usual method was to apply it twice a day for 2 or 3 hour periods. Another important effect noted was increased freedom of motion of the affected joints. A very slight increase in the swelling was usually noticed during the application of the bandage, which was not, however, edematous, and disappeared soon after the removal. Any lasting increase in swelling was not observed in any case. The fever subsided as a rule somewhat more gradually and slowly than when salicylates were used, but without any of the unpleasant accompaniments (severe sweating, etc.)

Comparing the results of this year, in which half the cases were treated by passive hyperemia, with those of the exclusive salicylate treatment of

the year before, it appears that there was little difference in the length of stay in the hospital; what difference there was being in favor of the newer method, however. Only 3% were discharged not cured, as against 5.3%.

With regard to complications aside from heart lesions no particular difference was observed. The cardiac lesions occurred, however, in only 8% of those treated with hyperemia, as against 26% of those receiving salicylates—a difference which STEINITZ considers important, although the salicylate cases were on the whole more severe. Furthermore, he thinks that these complications ran a more favorable course with the hyperemia than under salicylates.

He concludes that passive hyperemia may well be tried in the beginning of most cases of rheumatism. When the patients do not bear the bandage well, when the pain is not diminished by two or three applications, and when hip, shoulder, or spine, is severely involved, salicylates must be used—salicylates are indicated further in cases with considerable fever which does not subside in 4 or 5 days; in cases where the pain is diminished at first, but continues enough after 4 or 5 days to influence the general condition; and in cases where one joint after another is involved.

With recent endocarditis hyperemia is preferred.—*Zeitschr. für klin. Med.*, Vol. 64, p. 125.

**Treatment of Gastric Ulcer by Senatro's Method.**—SCHUETGEN reports the results obtained in 50 cases of gastric ulcer, treated according to Senatro's suggestions by feeding gelatin, fat and sugar. Twenty-eight patients were cured after an average of 20.5 days' treatment; 19 were at their request discharged improved after an average of 22.5 days. One was operated upon, and two died. In 94% of the cases, therefore, a favorable result was obtained in the relatively short time of 21.3 days. So far as can be judged from 50 cases it would seem that the results of Senatro's method are no worse than those of the ordinary therapy, while the brief duration of the treatment is an advantage.—*Ther. d. Gegenwart*, June, 1907.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**Lead-Poisoning from Lead Bullets.**—Lead bullets usually stay in the human body for years without causing any symptoms. BRAETZ found in literature only six cases of lead-poisoning starting from bullets left in the body after shot-wounds. It might be that these cases of lead-poisoning are much more frequent. The symptoms may not start until 17 years after the shooting and may start from very small projectiles, in one case, for instance, from three smallest shot weighing together 23 grs. The symptoms are the classical ones of lead-poisoning, but often only some of them (anemia, etc.) may be present; also colic, lead line on gums and paralysis of the extensors have been caused by lead bullets. The logical treatment is removal of the lead shot from the body, after which the symptoms promptly disappear. In order to make an early diagnosis of beginning lead-poisoning in patients who have bullets in their bodies, examination of the blood is important. Grawitz has shown that in beginning saturnism, the basophile granules in the blood are constantly present, even before classical symptoms of lead-poisoning occur. These granules can be easily discovered (fixating with alcohol and staining with Loeffler's strong alkaline Methylene blue.)—*Congress of German Surgeons*, April, 1907.

**Acute Abscess of Lung.**—The operative result in 20 cases of acute abscess of the lung shows a mortality of 50 per cent. This seems high, but when we consider that cases are included of four and five months' duration before operation, and those of a dangerous character, we realize that we are dealing with severe lesions. Without operation all such cases must necessarily be fatal. Our hope of good results seems to lie in the simple abscesses which are discovered early, before they have become extensive, multiple, or complicated by empyema, and before the patient has grown septic. Cases of lobar pneumonia which run an irregular course suggesting secondary empyema, and in which pus is not obtained by trial puncture of the pleural cavity, should be regarded with suspicion. They should not be permitted to drag along in the medical wards until the favorable time for operating has passed. It is far safer to explore such cases by resection of one or more ribs, palpation and inspection of the pleura, search for an adherent area, and trial

punctures of the lung through the adherent portion. If pus is present in the lung, it should be found in this way at the time, or may be evacuated later spontaneously through the wound. If pus is not present, no harm has been done by the simple operative procedure at a time when the patient's general condition is good.—LILTON, *Annals of Surgery*, September, 1907.

**"Gauze-Ether," or a Modified Drop Method with Its Effect on Acetonuria.**—This method of etherization is as follows: A square pad of gauze twelve layers thick, and sufficiently large to cover the patient's mouth and nose extending well down over his cheeks, is laid directly on the patient's face. Ether is then dropped on this gauze by means of a drop bottle, consisting simply of an ordinary bottle with a small wick inserted through a slit in the cork. Ether having been dropped for about one minute on this pad of gauze described above, another similar pad is laid on the first, and the rapidity of the drops is increased and continued until the patient becomes thoroughly anesthetized. It is very important that the ether should be gradually administered in this way, and not poured on in large quantities at a time, which not only hampers the etherizer in getting the patient narcotized, but also is inconvenient on account of the possibility of getting ether burns on the face, respiratory spasm, or at least coughing. When, however, the ether is administered as directed, the strength of the vapor is so gradually increased that the respiratory tract becomes accustomed to it without any sense of suffocation on the part of the patient. The stage of excitement is as a rule not recognizable.

In a series of 102 cases the average time taken to produce complete surgical anesthesia was four minutes and twenty-nine seconds. The shortest time was one minute and a half, and the longest ten minutes. In the same series, the average amount of ether required to produce and maintain anesthesia was seven ounces per hour.

The advantages for the gauze method of etherization are; it is less disagreeable to the patient. Post-operative vomiting is reduced from nearly 100 to 33½ per cent. Quicker recovery to consciousness and reduction of post-operative acetonuria from 88½ to 26 per cent.—LADD AND OSOOD, *Annals of Surgery*, September, 1907.



## GYNECOLOGY AND OBSTETRICS.

Conducted by

B. R. SCHENCK, M. D.

**Jaundice in the New-born.**—GILLESPIE says that jaundice of the new-born is so common that it can hardly be called a disease, but occasionally the child is ill and requires treatment. You will look in vain for much assistance in works on diseases of children, and works on obstetrics are silent so far as practical suggestions are concerned. The obstetrician seems to assume that new-born babes require no treatment, the writer on pediatrics is usually one who does no obstetrics, and his experience is almost wholly with older children. He arrives at his opinions of the new-born by reasoning backward from children three or four months old. The result is a particularly dangerous form of error, that error which comes cloaked in the mantle of authority. There is another error of serious moment, the assumption that the child does not require drugs in its treatment.

If a large, full-blooded child is allowed to take all the blood in the after-birth before the cord is clamped or tied, you will have jaundice within two or three days, because more blood is present than it can use and a state of plethora is accompanied by a rapid destruction of blood cells. A feeble child should be allowed to take all the blood it can, in order to bridge it over until the milk supply is established, but the vigorous child is better off without it. This statement is based upon fifteen years of careful observation, and can be verified by any one who will take the trouble. If there is considerable extravasated blood, as in hemato-cephalocoele, its absorption may give an icteric hue. In these conditions no treatment is required.

If the urine is not loaded with bile salts, the stools do not show absence of bile, and no infection has occurred at the navel, the jaundice may be ignored.

If bile salts are present in the urine and absent in the stools, calomel and phosphate of soda are just as positively indicated as in older children and adults, and even more effective, unless some congenital defect in the biliary apparatus is present. A teaspoonful of a saturated solution of sodium phosphate may be given the new-born

child, every two or three hours before nursing, with very good effect, and may be continued as long as required.

If intestinal fermentation is present, salol, guaiacol, bismuth and other drugs of their class should be used as unhesitatingly as in older children.—*Cincinnati Lancet-Clinic*.

**The Determination of Sex—Is It Subject to the Law of the Survival of the Fittest?**—JACKSON says that we have ample ground for abandoning the theory that the male is a factor in sex determination. It seems evident that the ovum contains both male and female elements, and a separation of the two elements in the ovum before it is fertilized occurs. But since fertilization occurs after the maturation of the ovum we must look elsewhere than to the spermatozoon for the factor which causes the elements to divide. Since the female has no voluntary power over sex it is probable that the female element has no power to cause this division. Hence the mother as a factor must be excluded. The struggle for the fittest in the ovum may be the determining cause, the weakest polar bodies going under, and the stronger going on to development.—*Medical Record*, September 7, 1907.

**Prolapse of Umbilical Cord.**—Four cases of this obstetric accident are reported by SURE. All the cases occurred in multiparæ and all previous labors had been normal. An excellent review of the literature is given and the following treatment advised: In absence of signs of compression, transverse presentation or incomplete dilatation, wait for sufficient dilatation, and when considered sufficient, turn and extract immediately. If compression occurs during this period, turn, replace the cord, bring down one foot and do not extract until dilatation is complete. The reposition should be done after the version. When the breech is brought over the inlet, replace the cord and engage the breech thus blocking its way. Reposition as the operation of election is useless, for the prolapse will recur.—*Wisconsin Med. Jour.*, July, 1907.

## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**The Influence of Antitoxin on Post-Diphtheritic Paralysis.**—ROSENAU AND ANDERSON in a Bulletin from the Hygienic Laboratory publish a series of interesting and valuable experiments on "The Influence of Antitoxin upon Post-Diphtheritic Paralysis."

After a careful review of the statistics from the Metropolitan Asylum Boards, they conclude that the percentage of post-diphtheritic paralysis was greater immediately after the introduction of antitoxin and decreased gradually in later years due to larger dosage and earlier administration. Other reasons for the higher percentage of palsies when the use of antitoxin became general were that more patients recovered and suffered paralysis; and that the new form of treatment stimulated more careful and accurate observation.

Rolleston is cited as expressing the opinion that antitoxin does not make paralysis more likely, and that early administration, especially in the severe cases, makes palsies less likely to occur.

All the experimental work was done upon guinea pigs. The summary and conclusions of this valuable contribution are well worth quoting:

"Post-diphtheritic paralysis in the guinea pig is an almost exact counterpart of the same sequel in man. . . .

In the guinea pig antitoxin cannot influence the diphtheritic paralysis after the paralysis has appeared.

Antitoxin has no influence in preventing post-diphtheritic paralysis if injected shortly before the paralysis develops.

Antitoxin given 24 hours after the infection can save the life of the guinea pig and greatly modify the paralysis.

Antitoxin, given in a single large dose 48 hours after the infection, did not modify the paralysis or save life. Thus, in our experiments 4,000 units failed to modify the paralysis or save the life of guinea pigs weighing about half a pound. *Weight for weight this corresponds to 400,000 units for a 50-pound child.*

Antitoxin given in repeated injections beginning 24 or 48 hours following infection seems to have a more favorable effect upon the subsequent paralysis than a single injection.

A very small quantity (1 unit) of antitoxin given 24 hours before or at the time of infection in our experiments prevented the development of paralysis.

In man we would expect more favorable results from the use of antitoxin than our work upon the guinea pig indicates, for we were dealing with an early and malignant form of experimental post-diphtheretic paralysis. This grave variety is, fortunately, rare in man. Further, we injected the entire charge of the poison directly

into the tissues of the guinea pig, while in man the toxin is doubtless elaborated more slowly. We may therefore assume that antitoxic serum, given at a somewhat later period than in our work upon guinea pigs, would exert beneficial effects.

The fact that one unit of antitoxin prevents paralysis and saves life when administered timely, whereas 4,000 units totally fails when delayed 48 hours, emphasizes the importance of using this sovereign remedy early.—*Hygienic Laboratory*.—Bulletin No. 38, June, 1907.

**Acetonuria.**—The presence of acetone in the urine does not result from the breaking down of fats and proteids in severe diabetes only. Acetonuria occurs in recurrent vomiting of children, in the pernicious vomiting of pregnancy, and in delayed chloroform poisoning as well.

Inasmuch as the source of the acetone bodies is mainly fats, the indications for treatment are the prevention of their formation and the breaking of the "vicious circle in autolysis." This can be brought about by diminishing the fat in the food, by administering carbohydrates and by neutralizing the acids already formed.

In the treatment of acetonemia in diabetes, carbohydrates must not be given in large amounts for the sugar cannot be utilized. Sodium bicarbonate should be freely administered until the urine is distinctly alkaline. Potassium citrate may be given in moderate doses in connection with the bicarbonate, or in mild acetonuria, 45 grain doses alone are particularly suitable. Rectal injections of sodium bicarbonate are unsatisfactory. Intravenous infusions frequently bring about a return to consciousness and prolong life for a short period.

In the recurrent vomiting of children in which the podromal symptoms of drowsiness, white stools, offensive breath, "muddy" complexion,—in short what are usually termed "bilious attacks," abnormal acids are generally present in the urine. The treatment should consist of small doses of grey powder or calomel, followed by doses of sodium bicarbonate up to 3 drams per day. Normal salt solution per rectum is useful. The food is best limited to a small quantity of carbohydrates.

Acetonuria often occurs in delayed chloroform poisoning. (1) Bilious attacks in children should be investigated: (2) Obese patients should be kept for a short time on a fat-free diet before operation: (3) Starvation and fright in children frequently give rise to an acidosis. For this, nutrient enemata before operation, are advisable.—W. L. BROWN. *Practitioner*, London, July, 1907.



## PEDIATRICS

Conducted by

R. S. ROWLAND, M. D.

**Pseudo-masturbation in Infants.** RACHFORD defines pseudo-masturbation as a syndrome occurring in infancy and early childhood, which has been described in medical literature under the title "Thigh Friction," and "Infantile Masturbation." It is commonly accomplished with the child lying on its back; the thighs are flexed, crossed and pressed tightly together, closely embracing the external genitalia. In this position the infant makes a wriggling, or up and down body movement and rubs its thighs together. In other instances the genitalia are rubbed with the hands or feet or against some piece of furniture or other foreign object. These movements are apparently attended by a pleasurable excitement, the face is flushed and there is a marked increase in nervous tension. Following this act, which continues for a few minutes only, there is a general relaxation, accompanied by a mild perspiration, quiet contentment and in some instances sleep.

Pseudo-masturbation occurs as early as the fourth month, and the average age of onset in the cases reported is sixteen months; 48 of the cases collected occurred in females and 4 in male infants. In fully three-fourths there is a distinct neurotic inheritance. Illness influences the severity and frequency. Irritation of the nervous mechanism which controls the sexual organs is the all important exciting factor. The site of this irritation in the vast majority of cases is in the genito-urinary organs. Irritation and disease of the rectum and lower part of the large intestine may also be direct causes of this condition.

RACHFORD finds an acid condition of the urine (which irritates especially the female genitalia) occurs in more than one-third of the cases. This cause of irritation may be periodic, or rather, it may occur at intervals in infants of the gouty or bilious type. This occurrence of acid urine, with the local irritation which it produces, may explain many of the cases which have a tendency to periodic relapses. In this group the condition may be aggravated by a diet rich in meat-juice and meat-broths, which form so large a part a diet of some infants. Constipation is reported as being a factor in 6 of the cases in the table, and there can be no doubt but that it is one of the direct causes of pseudo-masturbation in infancy. Colitis, with the irritation which it produces in and about the rectum, and diarrhea of any kind, by reason of the irritating influence of the discharges on the genitalia, may be important factors in producing this condition. Diseases of the rectum, pin worms, tight and irritating clothing, uncleanness and eczema of the labia, are among other causes. In male infants, adherent prepuce, phimosis, balanitis and all conditions which may produce genito-urinary irritation may act as direct causes.

RACHFORD says the prognosis is very good. Of the 52 cases presented, 25 were cured, 7 were improved, 17 received no treatment and only two cases are reported in which the treatment was of "no avail."

From analysis of these cases, as well as from his own experience, he believes that the majority got well.

The disease is a habit neurosis, and time, with a normal development of the nervous system which tends to stability and greater inhibitory control, is the most important factor in the cure of the worst cases.

RACHFORD believes that there is almost no relation between pseudo-masturbation in infancy and true masturbation in later life. It is possible, however, that a badly neglected case of pseudo-masturbation occurring in a strong neurotic infant may continue until it becomes one of true masturbation in the child.

In treatment it is imperative that the habit be interrupted as soon as possible. As the act is performed, as a rule, while the infant is lying down, and commonly when it awakens from a sleep, and when the parts are more or less irritated by the soiled diaper, it is important that the nurse, by constant watching, shall be present forcibly to prevent the act by taking the child up, changing the diaper, cleansing the parts and dusting them with a soothing powder. The watchfulness of the nurse should continue throughout the waking hours of the child, so as to keep the parts always clean, dry and free from irritating discharges. The child should be kept in a sitting posture as much of the time as possible, and even when taken for an outing should, if old enough, be carried about in a go-cart in preference to the ordinary carriage. The nurse should be directed forcibly to interfere at all times to prevent the accomplishment of the act.

In children over two years, mild punishment is sometimes effective. Moral suasion should be practiced with older children.

In severe cases forcible restraint during sleep may be necessary. This may be practiced in many ways as by pinning the pajamas and by various mechanical devices.

Under general treatment he mentions the use of bromides and belladonna given at bed time.

Where the treatment is carefully looked after, one may count upon a permanent cure in the great majority of cases within one or two years. In those that are less carefully looked after, four or five years may be necessary to accomplish a cure.—*Archives of Pediatrics*. August, 1907, pg. 561.



## DERMATOLOGY AND SYPHILIS.

Conducted by

A. P. BIDDLE, M. D.

**The Present Status of Phototherapy.**—FINSSEN and his disciples have conclusively proved the value of phototherapy in the cure of lupus vulgaris. The best results are obtained when all the details of treatment are carried out in accordance with the teachings of Finsen. In the light institute of Copenhagen better results are obtained than elsewhere by reason of the skill of the physicians and the experience of the nurses. Treatment with the high power (50 to 80 amperes) Finsen arc lamps is not at all adapted to office use, and is impractical even in hospitals, because of the size of the apparatus, the cost of the current, the duration of the individual treatments and the imperative services of a trained assistant.

The rationale of light treatment in lupus vulgaris is based on three main propositions: (1) The property of certain rays of the spectrum to destroy micro-organismal life. (2) Their ability to penetrate the skin. (3) Their power to produce reactive structural changes. Success in the light treatment of lupus depends, therefore, on the ability of the rays to penetrate, to kill bacteria and to inflame.

It has been demonstrated that the bactericidal effects of light is largely exerted by the blue, violet and ultra-violet rays. Some difference of opinion exists as to the manner in which the tubercle bacilli in the skin in lupus are destroyed. Finsen held that their death is due to the exclusive effect of the ultra-violet rays. This view is, however, not universally concurred in, many German workers contending that they are destroyed by changes induced in the tissues by the light. It is an established fact that light exerts an important influence on nutrient media. It has also been shown that the penetrating power of the various rays of the spectrum is in inverse proportion to their bacterial and chemical power. The red rays are the most penetrating and the ultra-violet the least. Most of the efforts in phototherapy in the past have been devoted to securing deep penetration of chemically active rays. Within the past few years the attempt has been made to increase the chemical activity of the penetrating rays.

The histologic changes effected in the skin by the action of light have been carefully studied by a number of observers. The findings are in general agreed on. There is a pronounced dilatation of the superficial and deep cutaneous blood-vessels with exudation of leucocytes. Light stimulates the epithelial cells and leads to nuclear division. After intense exposure degenerative changes in the epidermis may take place and the dead cells may be cast off through the formation

of blebs. The light also causes an increase in the number of connective tissue cells and a swelling of the collagen. At the height of the process the rete mucosum is thickened; and it has been demonstrated that light causes a hyperplasia of the epidermis and an abnormal cornification.

There are other diseases in which light may be employed to advantage, including lupus erythematosus, alopecia areata, acne, acne rosacea, flat vascular naevi, certain forms of eczema, leg ulcers, etc.

Light would doubtless have been more used as an auxiliary therapeutic measure in many cutaneous diseases had not the suddenly established reputation of the X-rays cast a shadow of obscurity over the milder acting agent. The ability of the X-rays to produce rapid and profound changes in cells and tissues constitutes at the same time the advantage and disadvantage of that treatment. Light energy, while much slower and much milder in its effect, is a perfectly safe remedy.

The much advertised high-power incandescent lamps have been viewed skeptically and not with much favor by dermatologists in general. Mercury vapor lamps have been in use for many years. The lamp made by Schott is called the "uviol" lamp, a convenient contraction of the term ultra-violet. Another is one of quartz with a water-cooling jacket made by Heräus of Hamburg.

In summing up his impressions as to the value of the mercury vapor lamp Schamberg says that it appears most capable of doing good in alopecia areata, leg ulcers and certain forms of eczema. The light is rich in chemical rays, but lacks deep penetration. These lamps have the advantage over others that a broad volume of light is emitted which can be conveniently applied over large areas. Another very pronounced advantage is that the grade of light erythema may be produced and even predetermined by the distance and duration of the exposure. The histologic changes produced by light have already been referred to; that a dilatation of blood vessels with exudation of fluid and corpuscles and regressive changes in pathologically altered cells occurs after the production of a distinct light erythema is evidence that in properly selected cases such treatment may prove beneficial.

Such phototherapeutic measures are to be viewed only as aids to other approved agents in the treatment of certain cutaneous diseases. —(J. F. Schamberg, M. D., Philadelphia, Section on Cutaneous Medicine and Surgery, A. M. A., Atlantic City, June, 1907.)

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## Original Articles

### A SURVEY OF THE ENDEMIC AND EPIDEMIC BOWEL DISTURBANCES PREVAILING IN ESCANABA\*

O. C. BREITENBACH, M. D.,  
Escanaba.

As a representative of the profession of the city of Escanaba, I feel honored at the privilege of addressing you on a subject, that to my confreres, as well as myself, has been a most interesting study.

Without warning, during October, November and December, of 1903, and continuing during the early months of 1904, Escanaba was beset with an epidemic so general, with a symptomatology centering itself in the alimentary tract, so intense, with a fatality so high, that the rank and file of the profession, as guardians of the health interests of many happy homes, must have viewed the then impending crisis with fear and trembling. Not that there was anything mystical or unfathomable in the situation, for sanitary science has largely eliminated conjecture and mysticism from the pale of some few definite enteric troubles, by clearly enunciating the causal factors in the etiology of bowel troubles. But rather because of

a realization by every conscientious, fair-minded, intelligent member of our profession, that similar epidemics in other communities have been the mile-stone of a sanitary evolution, that therefore, before their own eyes was being openly enacted a tragedy, that innocent lives were being lost to the community, and loved ones needlessly sacrificed. And this was due to conditions which the medical profession alone could pass authoritative judgment upon, and, in their quasi-public capacity, could perhaps have prevented by instilling into the minds of their clientele such knowledge of sanitary science as the situation in Escanaba demanded.

My remarks will be based on an investigation conducted since the epidemic described. I shall develop the fact that specific bowel troubles have for years past been present in our municipality, claiming a majority death-rate for years; that this slaughter of lives was unnecessary and uncalled for; that if these facts were known, then for reasons that have a criminal taint, the municipality had nurtured what sanitary science rec-

\*Read before the Upper Peninsula Medical Society and the Fox River Valley Medical Society, at Menominee, July 16.



ognizes as definite and positive causal factors in these diseases; that again and again these conditions have nurtured disease, which has assumed gigantic proportions with the change of hygienic environment attendant upon the growth of any community; that medical dictum, though often baffled in its philanthropic sphere by dissensions within its own ranks, and at times seemingly overwhelmed by the waves of ignorance, jealousy, superstition, censure, false citizenship and hoodlum politics, shall yet triumph in spite of obstacles interposed. For, beset with many difficulties, the craft toward the saving of lives has been launched in Escanaba. Out of a vale of tears and vain regret, above the wail of the widow and the orphan in this pestilential reign of death in Escanaba, in clear view of therapeutic medical endeavor, redounds to the everlasting glory and redemption of our profession in this and similar crisis elsewhere, the life-saving virtues of prophylactic medicine. Sanitary reform, if not in the past, shall in the future stay the hand of death and be monumental to the profession, and to the city in general, inspiring a respect and gratitude worthy of the cause. In short, the situation in Escanaba from many view points has been a most deplorable one, but teeming with instruction in a medical and legal aspect, as well as in an ethical and diplomatic way.

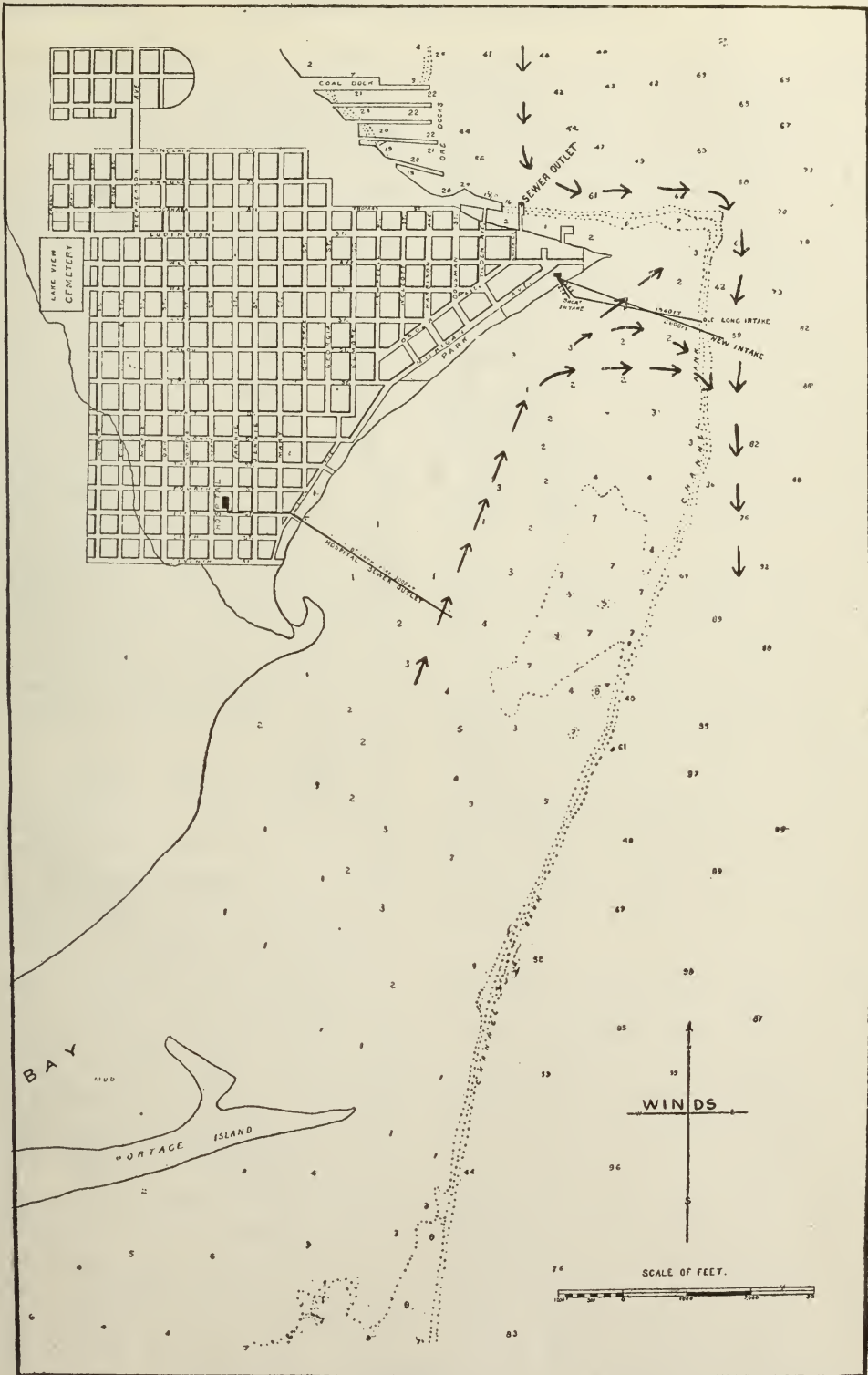
The epidemic of 1903-'04 I have chosen for illustration because it developed the most varied symptomatology in its cases. I say varied symptomatology, because the histories of innumerable cases could be cited conforming well with the common text-book descriptions of either acute ileo-colitis, or acute catarrhal dysentery, acute gastro-enteritis, dysentery, Asiatic cholera, a-typical typhoid, and typhoid. And so it would be faulty procedure to cite any given individual outbreak as typical. There were pres-

ent all gradations, from the type of patient with but a very slight indisposition, to the extreme type taken suddenly sick and moribund in 48 to 72 hours, a picture of Asiatic cholera. I shall attempt to convey to your minds, therefore, a few types, upon which you can base your deductions.

**Type 1.**—Individual enjoying good health, without prodromal symptoms, is suddenly taken with feeling of malaise, nausea, and bilious vomiting. With or without these acute stomach symptoms at varying intervals, sharp colicky pains and a severe diarrhea appear. The stools are feculent, but very thin, very offensive, and may number from a single passage to twenty a day. Objective symptoms are practically negative. Temperature is normal. Pulse normal or slightly accelerated. The diagnosis of these conditions is based on the acute onset, the characteristic gastro-intestinal disturbances, and the usual course of the disease. Patient is really never incapacitated for work, resorts to ordinary home remedies, or is subjected to a routine treatment of castor oil in large doses, followed by astringents and bowel antiseptics administered by his medical adviser, and is well in from 24 hours to three days.

**Type 2.**—Patient may feel indisposed for a few days, complaining of loss of appetite, lassitude, nausea, vomiting, acute pains in joints and muscles, as well as a general soreness throughout his body, headache, and a bowel irregularity in the way of unusual constipation or a slight diarrhea. Within 24 to 72 hours the discharges become more frequent, numbering twenty to forty a day. Feculent at first, they soon become seromucous, mixed with blood. Intense tenesmus is present. Patient may show signs of collapse. Tenesmus is relieved at this stage by passages of what may be nothing but shreds of necrotic mucous membrane, mixed with clear blood





MAP A

or coagula of blood. Stools are not offensive. Tongue is dry and parched. The temperature is not at all characteristic, but influenced by apparent intoxication may vary from sub-normal to 104 degrees. I have noticed in these cases, quite a common condition of cramp in the arms, hands and legs.

As in Type 1, objective symptoms do not aid us materially in arriving at the real condition of the patient. Tympanites is the exception, unless produced by complications, of which perforation has been known to cause death. Tenderness over the abdomen is quite general. The disease in this type of case runs a varying course of from one to three weeks, when convalescence is gradually established.

It is this type in the epidemic that showed the greatest mortality. The fatal cases were characterized by a greater intensity of symptoms on the part of the gastro-intestinal tract, a more severe prostration, and collapse, coming on within 48 to 72 hours after the onset. The patient with a normal, or more commonly, a sub-normal temperature, becomes clammy, the skin cyanotic, the pulse small and thready, giving us in sudden death a very good picture of Asiatic cholera.

**Type 3.**—This type of case presented a most unusual and complex array of symptoms. The cases objectively simulated typhoid, yet in their history, course, and fatality, differed materially from typhoid. The bowel symptoms differed in intensity in different cases, assuming in some few a dysenteric character, while in others bowel symptoms were in the background. The temperature in this class of case varied from 98.6 to 104, was continuous but irregular, and entirely different from the remittent character of typhoid.

**Type 4.**—This type includes typhoid as experienced in the epidemic.

The actual death-rate during this epidemic will also aid in giving you a more exact picture of the situation. The deaths numbered 61, of which typhoid claimed 32, enteric fever 8, acute gastro-enteritis 5, entero-colitis and the gastro-intestinal form of influenza, each 4, cholera infantum and dysentery, each 2, and cholera, cholera morbus, ptomaine poisoning and the old term, very vague at this day and age, of inflammation of the bowels, each 1. With this wide range of diagnosis that the death certificates thus furnish, including everything at all feasible, from ptomaine poisoning to Asiatic cholera, becomes apparent a difficulty in diagnoses, and a most varied opinion as to etiology. The situation as expressed, clouded with an uncertainty as to causal factors and specific diagnosis, gives you in a slight way, the status of the profession of Escanaba, face to face with a monster of most horrible mien.

In looking over the situation in Escanaba with a view to determining the causes back of this and similar outbreaks, I was forcibly struck by a history of typhoid and bowel troubles in the jurisdiction, previous to and since the epidemic just described to you. In an unassuming, but significant role, bowel disturbances had for years past been allotted a high death rate. Sporadic at times, they have, in Escanaba, as in other communities, from time to time taken on epidemic proportions. It will be well at this point, in order to elicit a clearer picture of the history of the bowel disturbances as they exist in Escanaba, to call your attention to "Table A," which will give you the typhoid history in outbreaks and death-rate per 100,000 of population.

TABLE "A."

*Cases and Death-rate of Typhoid in Escanaba.*

Year.	Estimated Population.	Cases.	Deaths.	Death-rate per 100,000.
1898 .....	10,500	20	2	19
1899 .....	10,500	60	6	57
1900 .....	10,093	140	14	138
1901 .....	10,444	50	5	47
1902 .....	10,795	70	7	64
1903 .....	11,146	40	4	35
1904 .....	11,500	300	30	260
1905 .....	11,500	210	21	181
1906 .....	11,500	120	12	104
1907 .....	11,500	270	22	191

Death-rate of 1907, up to and including May 11, 1907.

A study of this table will show the presence of typhoid to an extent, that, in the light of sanitary achievements elsewhere, strongly reflects not alone on the civic authorities, but also on those of us, who, as medical advisers, should be well versed in preventive medicine, and faithful to our trust, should ever be the guardians of health. Typhoid fever in 1904, as this record will show, had the maximum death rate of 260 per 100,000, the year 1898 the minimum death rate of 19 per 100,000. During the past decade, four successive years have shown the appalling death rate of over 100 per 100,000, which, considering an average death rate of 10%, would suggest an epidemic of 1,000 cases per 100,000 of population. The present year will claim the highest mortality of typhoid ever recorded in Escanaba. Considering three deaths per 100,000, an inexcusable death rate of this clearly preventable disease, a slaughter of lives is apparent.

To better classify Escanaba with reference to typhoid, I beg to call your attention to Table "B," which will allow comparison to be made with the death rate of other American cities.

TABLE "B."

Escanaba .....	260.0
Pittsburg, Pa. ....	124.7
Allegheny, Pa. ....	100.8
New Haven, Conn. ....	92.0

A—Charleston, S. C. ....	73.8
Washington, D. C. ....	67.3
A—Galveston, Tex. ....	67.0
A—San Antonio, Tex. ....	67.0
Atlanta, Ga. ....	61.7
Minneapolis, Minn. ....	57.6
Troy, N. Y. ....	57.3
Louisville, Ky. ....	56.3
A—Montgomery, Ala. ....	54.0
Cincinnati, Ohio ....	53.5
Denver, Col. ....	47.9
New Orleans, La. ....	47.0
Nashville, Tenn. ....	45.5
Kansas City, Mo. ....	42.9
Reading, Pa. ....	42.7
Wilmington, Del. ....	42.0
A—Memphis, Tenn. ....	40.9
A—Canton, Ohio ....	40.0
Cleveland, Ohio ....	35.9
Columbus, Ohio ....	35.5
A—South Bend, Ind. ....	35.0
Richmond, Va. ....	34.8
Grand Rapids, Mich. ....	34.7
Salt Lake City, Utah ....	34.5
Philadelphia, Pa. ....	33.3
St. Louis, Mo. ....	33.3
Hartford, Conn. ....	30.6
Scranton, Pa. ....	30.1
Toledo, Ohio ....	30.0
Los Angeles, Cal. ....	29.1
New Bedford, Mass. ....	28.8
Indianapolis, Ind. ....	27.4
Baltimore, Md. ....	27.3
Paterson, N. J. ....	27.0
Buffalo, N. Y. ....	26.8
Evansville, Ind. ....	26.6
Providence, R. I. ....	26.4
Dayton, Ohio ....	25.6
Peoria, Ill. ....	25.0
Boston, Mass. ....	24.6
Springfield, Mass. ....	24.6
Portland, Ore. ....	24.5
Seattle, Wash. ....	24.4
Albany, N. Y. ....	24.0
Hoboken, N. J. ....	23.0
Newark, N. J. ....	22.4
Omaha, Neb. ....	21.8
Worcester, Mass. ....	21.5
Milwaukee, Wis. ....	21.2
New York, N. Y. ....	20.3
San Francisco, Cal. ....	19.0
Fall River, Mass. ....	19.6
St. Joseph, Mo. ....	19.3
Manchester, N. H. ....	19.1



Lowell, Mass. ....	18.9
Somerville, Mass. ....	18.9
Trenton, N. J. ....	18.7
Des Moines, Ia. ....	18.6
Lawrence, Mass. ....	18.5
Rochester, N. Y. ....	18.2
Bridgeport, Conn. ....	16.9
Jersey City, N. J. ....	16.4
Camden, N. J. ....	16.2
Detroit, Mich. ....	15.7
Utica, N. Y. ....	15.5
Syracuse, N. Y. ....	15.0
Lynn, Mass. ....	14.3
St. Paul, Minn. ....	14.1
Oakland, Cal. ....	13.3
Cambridge, Mass. ....	10.6
A—Savannah, Ga. ....	9.7

Note—"A" cities that are using artesian water.

In comparing Table "A" with Table "B," our typhoid mortality in Escanaba looms up in marked contrast with that of other cities of the United States, with a greater population and much less favorable environment. The intensity of our typhoid is still more forcibly expressed in the words of the Monthly Bulletin of Vital Statistics published in Lansing, which correctly states, "There were more deaths in Escanaba from typhoid in April, 1904, than in all cities of like class in the state taken together; just as many in March, and just as many in May. There were five deaths in February from typhoid, or as many as occurred in all other cities of the class with over thirty times the population, and in March there were four deaths from this cause, which actually exceeded the deaths from typhoid in all other cities of the class." In passing, I will state, and you will observe in Table "B," that artesian water does not establish immunity against typhoid infection.

The mortality of bowel trouble other than typhoid, however, as pictured to you in types 1, 2 and 3, has been the most serious and has demanded the most of our attention. The deaths recorded give one but little idea of the magnitude of these disturbances

which but few households escaped from, and which have claimed many hundreds of adult lives. It will be noticed, in studying Table "C," which, in brief, gives you the history of water-born diseases other than typhoid, that these have maintained a death rate varying from 69 to 426 per 100,000.

TABLE "C."

*Deaths from So-called "Winter-Cholera" Since 1898.*

Year.	Estimated Population.	Deaths.	Death-rate per 100,000
1898 .....	10,500	10	90
1899 .....	10,500	8	76
1900 .....	10,093	25	247
1901 .....	10,444	15	143
1902 .....	10,795	22	203
1903 .....	11,146	18	161
1904 .....	11,500	37	321
1905 .....	11,500	49	426
1906 .....	11,500	28	243
1907 .....	11,500	8	69

Up to and inclusive, May 11, 1907.

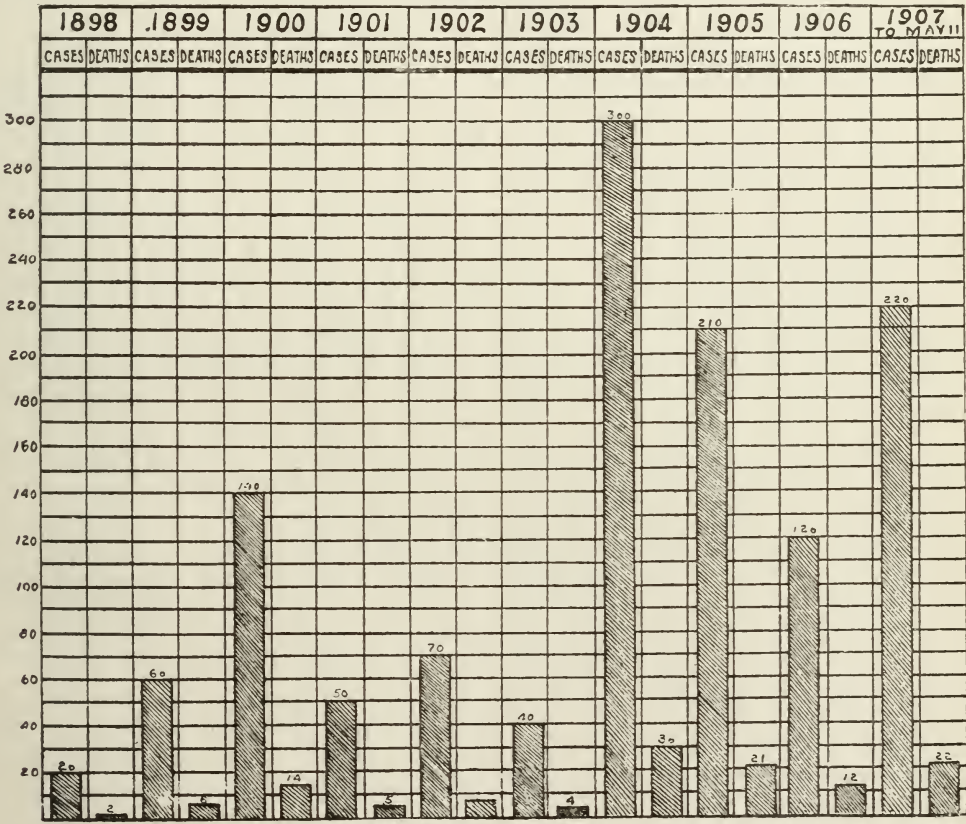
The mortuary tables as presented net the history of bowel disturbances a very interesting fact, in the exacerbation and decline of these troubles. An interdependence between typhoid and allied troubles is clearly suggested in Table "E." It will be noticed that typhoid in its ascendancy, as far as its death rate is concerned, in every instance is characterized by a corresponding prevalence of diseases other than typhoid, and vice versa. In this definite relationship, so graphically shown, is strongly suggested a common cause in these outbreaks.

I have reason to believe that the importance of water in relation to a group of bowel disturbances as described to you, is well understood. I have also reason to believe that you are reconciled by the thought that the symptomatology of the diseases as given you, is not at variance with that of other similar epidemics, which in Escanaba and elsewhere stand forth as a blot on this glorious country of ours. At any rate, it is an axiomatic truth, in sanitary science,

that typhoid and allied troubles would dwindle into insignificance in any municipality if pure water could be served to its householders. In other words, it has again and again been clearly and forcibly proven, that directly in proportion as our public water supplies are unguarded against pollution, typhoid and other bowel troubles flourish. These

wished for than the history of onset of some few of these conditions. The failure to boil water, as well as an occasional use of water in the city, would precipitate a most severe symptomatology. The direct relationship of individual outbreaks was even more forcibly shown by strangers in the city. Twelve hours' sojourn would find them with all the char-

TABLE 'D'.



truths, with the demonstration of the interdependence that exists between these diseases, as shown in Table "E," make water pollution a very suspicious and most interesting factor. While not conclusive, no more vivid and practical picture of the relationship of water to the bowel troubles described as they exist in Escanaba could be

acteristic symptoms as described in Type 1. As were affected individuals from villages and cities close to Escanaba, free from every form of bowel trouble, so were affected show troops, laboring crews, travelers and other itinerants. I wish to cite in detail the experience of one family that furnished me with considerable information, which so



strongly suggested water pollution, and epitomizes every phase of our situation. On the morning of March 1st, 1904, when the epidemic described was at its height, I was called to the home of Mr. P., who had arrived in the city February 27th., with a wife and a family of five beautiful children in full health. The family of children consisted of a daughter 8 years of age, and four boys at the ages of 10, 5, 3, and 1, respectively. Arriving in the city February 27th., on March 1st, 48 hours after their arrival, Tom, age 5, and Lizzie, age 8, took sick with a severe attack of vomiting and an intense diarrhea. The remaining three boys, 10, 3, and 1, respectively, were also indisposed at this time, but were not acutely sick, as were the other two children. Calling at the home March 2d, I found the whole family sick with one form or another of bowel trouble. The parents and children, in the course of their sickness, developed a symptomatology common to types 1, 2, and 4, even to the characteristic vomitus and stools, the stools varying from feculent or sero-mucous, to a muco-purulent, mixed with clear blood or coagula of blood, as well as necrotic bits of mucous membrane. The boy of 10, following repeated attacks of the disease as described to you in type 1, three weeks following the initial illness, developed typhoid fever. Cultures made from the stools of these patients netted me nothing but the bacillus coli communis. When first called to this home, my attention was called to a crepe on the house next door. Typhoid there had claimed as a victim a child of 14. At the same time, another child was battling for supremacy in that same household, with a typhoid infection. Those two adjoining homes, drawing water from the same faucet, enacted the tragedy so often repeated in Escanaba.

Getting down to fact, as far back as 1899, Gardner S. Williams, formerly

hydraulic engineer in charge of the laboratory at Cornell, now affiliated with the University of Michigan, compiled a report on Michigan water supplies. In this report he cites Escanaba as one of the fifteen possibly contaminated great lakes supplies. Was this disposition of Escanaba a correct one? With the opinion of Gardner S. Williams, and with the brief history of the intestinal disturbances that I have given you, the question of water has a most interesting history in Escanaba.

Escanaba is situated on Little Bay de Noc, an inlet of Green Bay. Until the year 1887, Escanaba's only source of water for domestic purposes was that obtained through driven wells. In the year 1886 a franchise was granted to a corporate body of men for a supply of water, the natural source of which should be Little Bay de Noc. Map "A," if consulted, will more clearly bring to your minds the essential features of the bay, of the bay bed, of its currents and also winds, as these have a bearing on the subject we have before us for study this morning. I shall state that the flow of the main current of water is south, and the winds prevailing are southerly. On account of sand shoal formations which exist in the bay, the main current of water is confined by very sharp and definite channel banks. Escanaba, as Map "A" will show you, is built on a peninsula, commonly known as "Sand Point." From the point of the peninsula, and from off the shore, such a sand shoal extends for many miles southward, out into the bay, forming the bay bed for a veritable distance of 1,500 to 3,000 feet. This exists as a plateau, until an abrupt dip occurs, where it serves the purpose of the deep channel bank.

Following the granting of the franchise in 1886, the water plant was immediately installed. When completed, the water was obtained through an in-

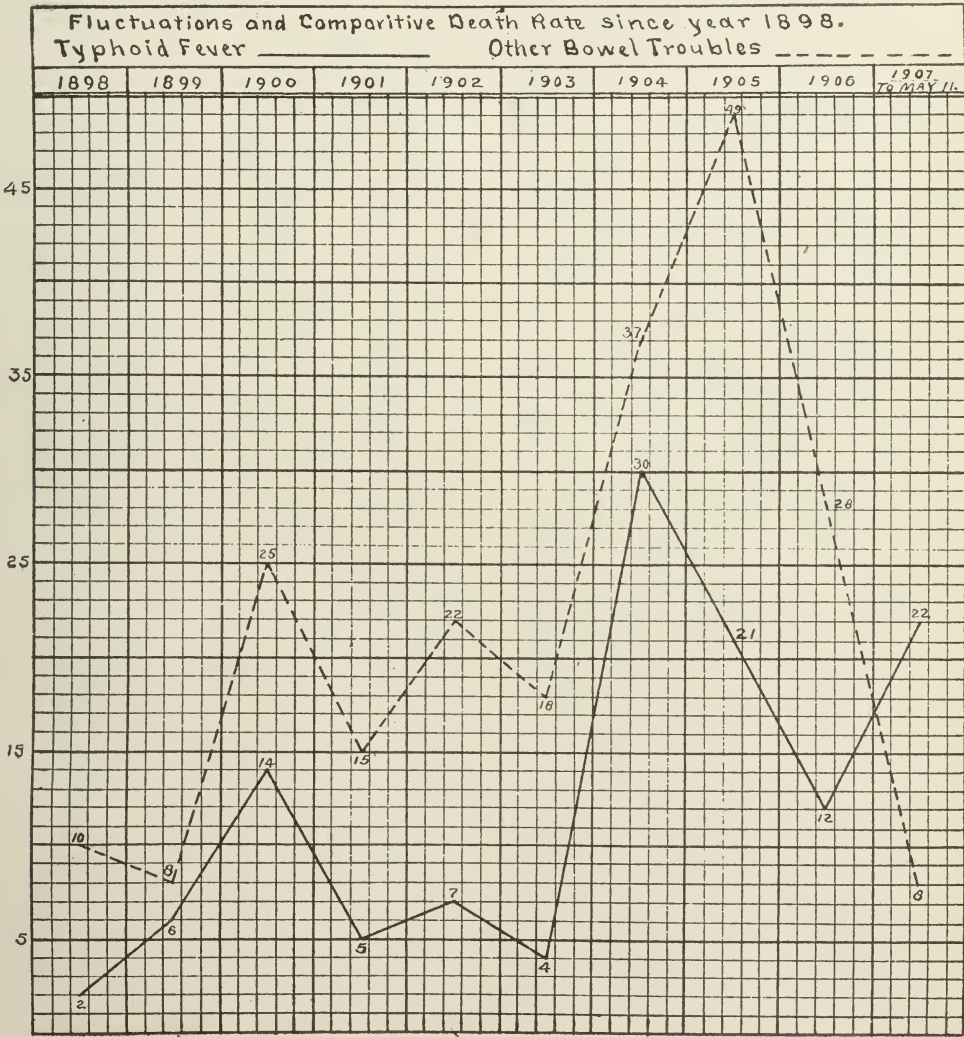


take 1,500 feet in length, extending out into the bay on the shoal described. This intake was in 20 feet of water. In order to insure adequate fire protection at this time, it was deemed advisable to construct what was termed a "short in-

service, consisted of the intakes described, a sand bottom settling tank, and the pumping mechanism.

With the introduction of faucet water and the increasing density of population, the rural methods in vogue for the dis-

TABLE 'E'.



take," drawing water as did the "long intake," from off this sand shoal. This short intake was 258 feet from the shore, at a depth of five feet. The pumping station complete, therefore, at its initial

position of house refuse and other offal became a menace to health, and it was deemed necessary to plan a sewer system. This system was put into commission in the year 1891, and though

devised and approved at that time by sanitary experts, we find the main outlets emptying under the Stephenson dock (see Map "A") discharging their contents, composed of stools, surface water, that drains the filth of alleys and back yards, as well as streets, into a stream of water, which flows around Sand Point, thence down and out of the bay in a current of water, the flow of which is south, not away from the intakes described, but towards them, depositing by gravity in its course, the common offal described. Human intelligence saw fit to have the inhabitants of the city of Escanaba partake of water so polluted, little realizing at that time perhaps, that such a procedure would prove an expensive one in a sacrifice of a commodity so necessary to thrift and progress of a city as human lives. In a very stealthy way, without an alarm for the people's awakening, typhoid and other intestinal disorders began to appear, and many of our older citizens at that time, with the welfare of the city at heart, in a very forcible and intelligent way, from time to time began to question whether or no the inhabitants of the city were really getting a wholesome water. It was urged upon the Escanaba Water Company that, because the intake was so near the shore, with the possibility of the waters of this shoal carrying out surface contamination, as well as standing in position to be affected by the sewerage carried into the bay, it might be well to extend the main intake. This was done in 1894, so that it measured 1,940 feet, involving an extension of 440 feet bringing the then long intake up to the channel bank, but not into deep water. It was actually drawing water at the depth of 45 feet. (See Map "A.")

Whether or no the building of the hospital sewer, so-called, (see Map "A") carrying the excreta and other offal of patients and attendants in the Delta

County Hospital 1,000 feet out on this shoal, in but a few feet of water, and within 4,000 feet south of the long intake, as it then existed, had any influence to exaggerate conditions or help to maintain conditions as they existed, there can be no question. This water on the shoal, thus polluted many times with hundreds of stools of typhoid patients, and at the mercy of wind and waves, could only aid, by the water served through the intake, all the factors necessary for an exacerbation of any endemic bowel trouble. This sewer certainly implies but little foresight, and was, to say the least, a most criminal venture. At any rate, though the intake was extended from 1,500 feet to 1,940 feet, and from an original depth of 20 feet to 45 feet, the endemic troubles, which the extension purposed to eradicate, still existed with the mortality that Tables "A" and "C" so forcibly show. In spite of the extension and the expenditure of money involved, typhoid still maintained a death-rate varying from 19 to 260 per 100,000, and other kindred bowel troubles a death-rate varying from 76 to 426 per 100,000. With this slaughter far from abating, the cry again went up that the water supply of the city was far from usable. Pressure was again brought to bear upon the water company towards making them realize that there was something radically wrong, and that something ought to be done to eliminate the sacrifice of human lives. The officials of the water company, evidently realizing the justice of such demands, again sought to improve matters. The work done, however, as in the past, was unmethodical, and with little regard for the principles sanitary science has so often emphasized in the construction of pumping stations and their appurtenances. They undertook to construct a new intake 2,600 feet in length with a crib in 65 feet of water, at a cost of \$26,000. (See Map "A" New Intake.)

Its completion, looked forward to so eagerly, with everybody hoping that bowel disturbances at its completion would no longer command the high death-rate of the past, proved a decided disappointment. Like all other improvements ever made, this also failed to alleviate conditions, and the epidemic of 1904 assumed greater proportions in 1905, and since then.

In February, 1905, with conditions not alleviated by the new intake, a bacteriological and chemical examination of samples of water taken from the bay at appropriate points, including water from the crib, settling tank, and many faucets throughout the city, was made. To summarize the findings, I will state in brief, that in nearly every instance, samples taken at that time and since then, have shown bacteriological growth in a degree that was vicious. The bacillus coli communis and other organisms of the colon group, were the offenders by cultural demonstration. With the fact that typhoid bacilli have no permanent independent existence outside the human economy, and with the experience of research in other strictly typhoid epidemics, in which the finding of this bacillus was the exception, one is not at all surprised at the negative finding in the waters analyzed. And still I feel warranted to say, that the daily examination of faucet water would have netted me a positive reaction. The same difficulty that is experienced with the typhoid bacillus, one also experiences in trying to demonstrate one of the many forms of the bacillus dysenteriae, which with the bacillus enterodisenteriae sporogenes is recognized as a most common factor, in all forms of acute diarrhea and dysentery produced by polluted waters. The chemical findings in excess of chlorin, nitrates and nitrites, free and albuminoid ammonia, as well as organic matter, showed the water in nearly every in-

stance very suspicious of active pollution.

When one considers that 98% of typhoid and other bowel disturbances that exist in municipalities are conveyed either by water or milk, it becomes important not to overlook water supplied by wells. Unless the public supply is grossly contaminated, it is by far safer than private wells in a city the size and geological formation of Escanaba. No matter how good the public supply, there are those in any community who will be persistent in the use of driven wells. It was my privilege to show pollution in many wells in Escanaba, and in some specific cases, clearly trace a second and third case of typhoid in households, to water from a driven well at a depth of ten feet, within fifteen or twenty feet of an outhouse, that at some time previous had received the dejecta of a first typhoid case clearly traceable to faucet water. Filthy surroundings, and gross carelessness in handling stools of patients sick with typhoid, will always be of bad omen in any community that is dependent upon well water in this city, and no matter how pure the public supply may be, with well water gaining access into the human body and coming in contact with household articles of food, such as milk, will always help to maintain a high death-rate. The public consumers of Escanaba average 60%. No matter how pure the water from other sources, the 40% of well users in the city will always maintain a high typhoid mortality.

That milk is a link in the chain of cause and effect occasions no surprise. The relationship of milk infection to infant mortality, as also the importance of milk in disseminating disease, is well known to you, and I shall not enlarge on this phase of our trouble. I shall only say that a definite relationship between milk and isolated cases of disease has been proven.



In addition to the avenues of infection cited, there are many other factors contributing to these, which the transition of any municipality, from village to city, implies. This evolution demands that rural methods of sanitation must needs be replaced by what is more in accord with modern sanitary thought. Such, however, is not always the case. The question of sewerage, therefore, as an illustration, in each and every community becomes a difficult problem, as it has a direct bearing on the health of the community, equally as much as home hygiene.

With the demonstration of a polluted water, it remains for us to reconcile the symptomatology of the bowel troubles encountered with specific etiological factors. In the symptomatology, most varied and decidedly interesting, and with water pollution as evidenced, sanitary science demands that we recognize the possible activity of some few definite organisms. And in the light of the epidemic experienced in Escanaba, it is most ridiculous for any one to seek any hidden or mystical cause or explain the diseases in any other way than by associating them with definite bacteriological factors. A polluted water, in any instance, implies the relationship of cause and effect. We must always recognize the activity of definite organisms which in the water produce diseases, and although no demonstration of any organism outside of the colon bacillus and of the colon group has been made, as in other epidemics of a similar nature, we may acquiesce in the fact that other organisms were undoubtedly present. It would not have occasioned, in other words, any surprise to find by bacteriological demonstration, these other organisms associated with water-born diseases. The bacillus dysenteriae, bacillus enteroditis sporogenes, bacillus typhosus, and the bacillus associated with paratyphoid, all bear a direct relationship to

polluted water, or in activity with the putrefactive organisms such as the proteus or lactic acid group furnish, and which are normally present in the bowel. We have absolutely no ground to think the bacteriology of our diseases, as experienced in Escanaba, in the endemic and epidemic bowel disturbances, any different from the findings in other communities with an identical history. And with this definite bacteriological relationship, definite diagnostic principles evolve.

The etiology of typhoid and allied bowel troubles at this day and age, ought not to be questioned. With typhoid etiology clearly in mind, and with the direct relationship of many other forms of bowel trouble to typhoid fever, there can be no question at all as to the fact that we have had to deal in Escanaba with certain definite organisms. In any epidemic of bowel troubles as experienced in Escanaba, the great variety of cases that present themselves permit of many diagnoses, and offer a most varied pathology. But, notwithstanding this most unusual and varied symptomatology, the unusual intensity of symptoms, and the exceedingly high mortality that these net us, from the standpoint of a definite bacteriological causal factor and the implied *modus operandi* through the associated baccilemia and toxemia, the wide range of diagnoses encountered on the death certificates, must be set aside.

The authorities will bear me out in the statement that the differential diagnosis between the milder forms of bowel troubles and the milder forms of dysentery, are exceedingly difficult to make. As regards the differential diagnosis of dysentery and typhoid, there is in most minds no question. They are looked upon as not at all similar, and of easy differentiation. And so it is a very easy matter, with a knowledge of typhoid as furnished by the average text book. Yet

one realizes in a wide experience of typhoid, that it not always is the clearly defined infection, as generally pictured. The more typhoid one has the privilege of attending, the more forcibly will come home the argument that the course of typhoid is not a very definite one, that the stages of typhoid and their associated symptoms, as outlined in the average text book, from pyrogenetic stage to the stage of defervescence, are not unalterable. As the intoxication may be mild or severe, or as we have to deal with a simple infection or mixed infection, so the classical picture of typhoid is many times obliterated. It is not strange to find typhoid, as we have experienced it, in symptomatology and fatality assume a picture of dysentery, showing post mortem the pathology of dysentery, existing as a secondary infection. With the picture of typhoid, thus altered, it is many times possible by examination of body fluids and stools, to diagnose typhoid, with the picture of collapse, prostration, dysenteric stools, and acuteness of disease, strongly suggesting dysentery. Subjective reasoning, in coming face to face with a situation different from the ordinary, will allow most absurd diagnoses to suggest themselves, whereas objective study will confine your deductions, to your surprise, to a line of reasoning that in a logical way will lead you to a diagnosis little thought of. There is no question that in many epidemics similar to the one described, much that detailed work would establish as clearly typhoid fever, is overlooked, but because individual outbreaks in their acuteness, prostration and death in from 48 to 72 hours simulate specific dysentery or true Asiatic cholera. And so Type 2 in its more severe forms of bowel trouble as pictured to you, with an obliterated typhoid symptomatology, have many times, to my surprise, evidenced their relationship to the bacillus typhosus by bac-

teriological demonstration. Major V. C. Vaughan, co-editor of the Report on the Origin and Spread of Typhoid Fever in the Spanish War of 1898, establishes the fact that such a symptomatology, with the gravity as portrayed, should not be oriented in differential diagnoses, and should not at all be looked at as an unusual manifestation of the bacillus of typhoid fever. His observations help to establish the truth of my contention as made in this respect.

I have reason to believe that we have in this epidemic and endemic bowel trouble in Escanaba to deal with some few definite organisms. In Types 1, 2, 3 and 4 is implied a definite bacteriology. I associate with Type 1 an activity of the colon bacillus and other organisms of the colon group; with Type 2, the bacillus enteroditis; with Type 3, the causal factor of para-typhoid which exists in a bacillus, generally isolated from the blood and feces of patients sick, and which morphologically and culturally is closely related to bacillus typhosus; with Type 4, the bacillus of typhoid fever, playing its role in the most varied symptomatology that typhoid granted us in Escanaba. With these specific causes of disease it is imperative to associate putrefactive organisms normally present in the bowel, for undoubtedly, in many instances, a mixed or secondary infection exists.

In this day of bacteriological evolution, with typhoid and para-typhoid, colon and para-colon infections with the theory of mixed infection, with the theory of exaltation as applied to the life of any organisms, allowing it to take on a greater virulence and pathogenesis towards man, with the theory of the bacillus coli communis, under favorable circumstances, taking on the morphology and toxic properties of the bacillus typhosus, with the uncertainty of being able to definitely classify a great variety of organisms similar, yet in their mor-



phology and cultural attributes, differing slightly, with the uncertainty of the intra- and extra-cellular activity of this protoplasmic germ-mass in the elaboration of toxalbumins or other definite organic, chemical compounds, it becomes evident that any disease, dependent on a specific organism, is liable to vary in its symptomatology. In an epidemic, therefore, as experienced, the varied symptomatology is easily explained.

So much with reference to causal factors, diagnosis and pathology. Three years ago specific recommendations were made to the mayor and common council towards alleviating the conditions. Nothing definite, however, has been accomplished but I am glad to say that after three or four years of warfare, during which time the fight, political and otherwise, has waxed warm, some few recommendations then made are to be carried out. It was my pleasure, recently, to meet in joint session with the corporate officials of the water company, their sanitary engineer, a special water committee of the council, appointed by the mayor after making a report to the newly organized council of this spring, and a committee appointed by the directors of the Business Men's Association of our city, to discuss ways and means towards bringing about the needed reform. The result of the meeting will be the building of a modern filtering plant with a daily capacity of 6,000,000 gallons. With this one recommendation carried out by the city authorities, the grand saving of lives will have been inaugurated. With a pure public supply of water, driven wells will gradually be abandoned, and thus two of the most important factors in disease will be annihilated. Thus we have reason to feel that extensive sanitary reform has been inaugurated that shall make Escanaba the healthful community it should be.

With the recognition of typhoid and other diseases established as water-born, the issue, paramount to all others, resolves itself into means of prevention. Sanitary reform as it is dependent on state or city enactments, is beset with many difficulties. To accomplish anything along this line also demands a diplomacy and tact equally as much as a comprehensive knowledge of any given situation. In an attempt to apply remedial measures, one finds, in the ignorance and superstition of the people, mighty obstacles against progress. Not only will petty grievances work evil, but with a corporate body of men having vested interests at stake, as is the case in Escanaba, dissention will be stimulated and lives criminally sacrificed because of these. And yet this is not the worst evil. Simple ignorance is open to conviction, but an ignorance that a certain type of egotist is saturated with, who sets himself up as authority, stands ever ready to halt any inroad of modern thought. This same class of individuals is ready to stigmatize those men who are using their efforts to bring about needed reform, as fanatics and extremists.

The triumph of our profession centers itself in preventive medicine. The highest standard of professional excellence is embodied in the ambition of all of us to put to practical use the life-saving feats of those martyrs of our profession, that in their painstaking and unselfish labors have so clearly shown the causal factors in disease. To go on day by day in routine work of our practice, never realizing that sanitary duties are incumbent upon us, expresses but little regard or appreciation of the labors of such men as Carroll, Reed, Lazear and Myers, all well known to you. Can one do aught else but reverence Lazear and Myers, who in the zeal and earnestness of their labors sacrificed their lives for a cause that has meant the saving of



thousands of lives, and has granted this country the glory of the labor of these men in the Yellow Fever Commission that has established the causal factor in yellow fever and has removed the scourge of this disease?

In closing, therefore, I can do no better than to make a plea for three things that will materially aid and stimulate in any community a desire to apply the principles of preventive medicine. While the Compiled Laws of 1897 in Act 4796 and Act 4797, make it obligatory upon every school board to have in their prescribed course of study instruction on sanitary matters, but few cities derive the benefit of this Act. No other institution can serve a city more ably in building character than its school system. As it is well to outline the civic duties of the rising generation, and thus help to make life more harmonious and less selfish, so it is well that in sanitary matters we instill into the minds of these children, what shall mean the saving of lives and the alleviating of much misery. As our public school system is a stronghold of a democratic and republican form of government, so it should be made the bulwark of sanitation, and be instrumental in sending into every home, regardless of nationality or surroundings, the life-saving virtues of home hygiene. Superstition and ignorance will thus in time be replaced by a keen interest in sanitary reform, and the difficulties, political and otherwise, that it is beset with, will meet their doom.

Again, a human life is a commodity that organized government sanctions as integral and essential to its welfare. As members of the medical profession of our country, we can rightfully ask the question—What country has better reasons to be glorified by prophylactic medicine than this great republic of ours, and express the highest culture and highest civilization in an expression of humanitarianism exemplified in the

actual saving of human lives? Although the principles of prophylactic medicine are far-reaching in this country, the greatest good is not being accomplished; as the death-rate in Escanaba and many of our larger American cities will testify to.

Nothing could more materially aid endeavors along this line than the establishing of a National Department of Health with cabinet representation. In truth this inauguration would be a mile-stone in the onward march of preventive medicine. As a means to an end, such a department should be welcomed. With the density of population increasing, water pollution and sewerage disposal more and more tax the vigilance and ingenuity of the people. With typhoid as prominent an offender as it is, National or State legislation becomes imperative. The past decade has been only too rich in epidemics of these diseases, clearly filth and water-born.

And, finally, a greater interest in public health work generally needs to be stimulated. Preventive medicine, to be the triumph of our profession, needs the co-operation and individual support of all of us. As one need not be in the line of battle in war time, but by a patriotism and staunchness in support of any cause, can well serve his home and country in citizenship, so it is not necessary for any of us to sacrifice our lives, to glorify preventive medicine and medical research fostering it, as did Lazear and Myers. But we can, to say the least, do our duty as progressive men in the ranks of our profession, to uphold the principles that these men have established beyond question, and for which they have sacrificed their lives. And as public health, as established in the army and navy, has netted grand results, so public health work, can be the foundation in every state of this union, for the growth and development

of preventive medicine. It should not be necessary for legislators to impose duties with reference to infectious diseases, but it should be the desire and ambition of every well-read, progressive man, in the ranks of our profession, to find a pleasure in the support of this work. The achievements in prophylactic medicine that we recognize today, have been secured to us largely by much valuable aid that vital statistics have furnished us. Epidemics, such as described to you, and as experienced in many of our cities throughout the country, should offer instruction, not alone in the community that harbors them, but to the country at large, and yet, because of an apparent indifference in reporting individual outbreaks, they signally failed in this respect. It becomes

necessary many times to grope in darkness for a cause that vital statistics may point out, but that neglect in the ranks of the profession has shielded. Blame cannot but rest on the profession under those circumstances.

And, to be sure, "if we can interest our governments," in the words of Senn, "our people, our educators, the public press," and, I shall add, the medical profession, "in this great movement of abolishing preventable disease," and not until then, "may we confidently expect the millenium in medicine, which will be inaugurated by the final triumph of scientific medicine."

"Conquer we shall, but we must first contend;

'Tis not the fight that crowns us, but the end."

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## OBSERVATIONS ON THE DIAZO REACTION IN URINE.\*

Chemistry of the Reaction, Indications in the Urine, Clinical Significance, Reports, Diagnostic Value, Cautions.

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WILFRID HAUGHEY, A. M., M. D.,  
Battle Creek.

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Prominent among the laboratory methods recommended for the diagnosis of typhoid fever is the so-called diazo reaction, as proposed by Ehrlich. Chemically this reaction, or its principle, is of great value in the arts. The term "diazo reaction" refers to a certain definite procedure by which many of the aniline dyes of commerce are made. In the preparation of these dyes, the process is briefly as follows: A certain aromatic radicle, depending on the dye desired, is

united to the aniline radicle, or some derivative of this radicle, by the diazo group. This diazo group consists of two nitrogen atoms joined together in such a way that each takes up two valences of the other, leaving one valence of each free. This free valence unites on the one hand to the aromatic radicle, and on the other to the aniline radicle or its derivative. Salts of these compounds, sulphates, oxalates, hydrochlorides, etc., are the aniline dyes of the arts.

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The diazo test of Ehrlich is made by

adding to ten cc. of a saturated solution of sulphanilic acid in 5 per cent hydrochloric acid a drop or two of a .5 per cent solution of nitrite of soda. To this mixture an equal volume of urine is added, and the whole quickly saturated with ammonia. A red color extending into the foam is indicative of a positive reaction.

Sulphanilic acid is a derivative of aniline oil produced by the substitution of the sulphuric acid radicle, so that the dye formed from this derivative will be the sulphate salt mentioned above. Sulphanilic acid is largely used in the aniline dye industry. The nitrite of soda furnishes the nitrous acid from which the diazo group is derived. According to Novy, "the substance giving the reaction is an aromatic compound, probably a metabolic product, occurring in the urine under certain special conditions." Novy's argument is largely one of analogy, for the substance itself has never been isolated. Accepting this argument, this substance, on account of its complexity, probably comes from some proteid material, being a product of impaired katabolism. A fact of interest, tending to support the opinion just stated, but of whose value I am as yet uncertain, is that in all my tests, whenever I have found the diazo reaction, I have found the urea excretion low, averaging 1.3 per cent.

The body condition which will cause this peculiar impairment of the metabolism has been the object of investigation by many different scientists, whose conclusions agree in the main with those of Ehrlich, who in 1906 claimed that "the reaction is never found in healthy individuals; in non-febrile diseases only exceptionally, and in the following instances: advanced heart disease, chronic hepatitis, carcinoma (especially of the pylorus), leukemia, marasmus senilis, cachexia of malaria, and in cold abscess. Febrile diseases may be divided as fol-

lows: First, those in which the reaction is almost always absent, as arthritic rheumatism, meningitis; second, those in which it may occur more or less frequently according to the nature of the attack, as pneumonia, scarlet fever, erysipelas, diphtheria, phthisis; and third, those in which it is of nearly constant occurrence, as typhoid, typhus, and measles."

A few years ago French wrote: "The reaction is most commonly found in the urine of typhoid fever from the fourth to the seventh day and thereafter. If the reaction does not occur the diagnosis is doubtful. If it be faint and occurring only for a few days, the prognosis is favorable. It is found only in such cases of pulmonary tuberculosis as are pursuing a rapidly fatal course. It is sometimes, but not often, found in measles, miliary tuberculosis, pyemia, scarlet fever, and erysipelas, but never in afebrile diseases, such as chlorosis, hydremia, diabetes, or in diseases of the brain, spinal cord, or kidneys."

Many authorities speak of the reaction almost exclusively in its relation to typhoid fever, as witness Simon: "If in a doubtful case the reaction is found between the fifth and thirteenth day of the disease, and not later than the twenty-second, it is presumptive evidence that the disease is typhoid fever; if the reaction is not found in the second or third week of a supposed case of typhoid fever, it is probable either that the case is very mild, or that the diagnosis is wrong."

Such statements as this, and many others which we have all read, are apt to convey the idea that the reaction is practically always indicative of typhoid fever, and when the reaction occurs in the course of investigation of a doubtful case, one might be led to consider the diagnosis clinched. I know a young man who, feeling poorly one spring, went to a doctor's office in Detroit for help.



The doctor, a very excellent man, and very proficient in laboratory methods, obtained the diazo reaction, and immediately diagnosed "walking typhoid," which, by the way, subsequent events proved that the patient did not have. He was instead suffering from a chronic poisoning from impure water.

Within the past few months I have found this reaction in the urine of eighteen non-febrile patients. It has been in that of five pregnant women—a condition not included in the classifications of either Ehrlich or French. I have found the reaction in one case of cold abscess, in a case of reflex nervous disorder caused by a prolapsus of both ovaries and tubes in the posterior cul-de-sac of Douglas, and in cases of business men suffering from nerve strain. One case of early locomotor ataxia presented a very strong reaction. (French excludes spinal cord diseases—see above.) The urine of a child of five years, apparently healthy but of slow growth, presented this reaction, as did that of three applicants for life insurance examination, all of whom passed. A man with acute gonorrhea gave the reaction, and also a convalescent from facial erysipelas. I obtained the reaction in the urine of a boy who had a long-continued appendicitis, with walled-off pus cavity. This boy had been treated for typhoid fever for two months, the doctor making the diagnosis because he found the reaction. It was this case which first called my attention to this subject, and determined me to prepare this paper. I was surprised to find the test being taken as an almost positive indication of typhoid fever.

These findings lead naturally to the question of the real diagnostic value of this reaction. Ehrlich never proposed it as a test for typhoid fever, but as an aid in diagnosis. He says: "In typhoid fever the reaction is of diagnostic value in one of two ways: first, the persistent

absence of this reaction in a disease that simulates a severe attack of typhoid fever speaks considerable, though not absolutely against the diagnosis; second, typhoid relapses or recurrences may be distinguished by this reaction from intercurrent lung affections. With a relapse or recurrence the reaction will return or increase, otherwise this is not the case."

Allen, of San Francisco, in a monograph on typhoid fever, says: "In the diagnosis of typhoid fever the diazo reaction, while present in a large percentage of cases, is found in so many other febrile conditions that its value is considerably diminished; yet taken in conjunction with other positive findings we may place some reliance on it."

Novy tells us: "It is met with as a rule in typhoid fever, therefore a certain diagnostic value is attached to it, but it occurs in various other conditions."

Dayton remarks that "Ehrlich's diazo reaction is merely of value as slightly confirmatory of other tests."

Von Jaksch believes that the test is always due to the presence of acetone, and he prefers to regard it as an uncertain indication of that body rather than anything else. This view is not held by others.

Caille says: "The reaction is supposed to be of value in the diagnosis of typhoid fever, but it may be absent in many cases."

Sahli: "The diazo reaction must be considered as a metabolic symptom of certain diseases which is not of diagnostic value in itself, but only when considered with other symptoms.... A similar test may be obtained after the administration of opium, morphine, chrysarobin, naphthalin, heroin, dionin, tannin, alcohol in large quantities, phenol, cresol, creosote, and guaiacol."

The diagnostic value of this reaction is still under question. It occurs in so

many and such varied conditions, and follows the administration of such drugs, that the elimination of these contributing influences must be made before a diagnosis could be based on its presence. My object in presenting this paper is not iconoclastic, but rather to stimulate thought and interest along this line of observation, which a study of the literature would seem to show has not received the attention it deserves. Another and stronger motive was to speak a word of caution against assigning to this test an importance which even its originator has not claimed for it.

The value of this test, as far as my observation and study goes, is that it indicates some peculiar impairment of the body metabolism, probably the proteid katabolism. It is generally understood that certain diseased conditions will produce this impaired metabolism, but certain others not so generally recognized, and even an apparently healthy state may produce this condition. I would therefore claim for the reaction the office of acting merely as a check upon other methods of known diagnostic value, and believe that persistent and systematic study will some day determine a more positive value.

Name	No.	diazo	urea	NaCl	SO <sub>3</sub>	bile	indican]	complaint.
Mrs. G.	1	pres't	1.5%	.....	.....	neg.	neg.	pregnant.
Mrs. F.	2	pres't	1.4%	.....	.....	neg.	neg.	pregnant
Mrs. K.	3	pres't	1.5%	.....	.....	neg.	neg.	pregnant
Mrs. T.	4	pres't	1.1%	8.44g	2.11g	tr.	neg.	pregnant
Mrs. W.	5	pres't	1.6%	.....	.....	neg.	neg.	pregnant
Mrs. H.	6	pres't	.9%	1.80g	.90g	tr.	neg. ]	neurasthenia
W. H. H.	7	pres't	1.0%	.....	.....	neg.	neg.	locomotor ataxia
T. A.	8	pres't	1.6%	.....	.....	neg.	Trace	cold abscess
A. H.	9	pres't	.....	.....	.....	pres't	neg.	conval. erysipelas
M. H.	10	pres't	.....	.....	.....	neg.	neg.	gonorrhea
S. B. H. ]	11	pres't	1.2%	.....	.....	.....	.....	life ins. exam.
Mrs. B.	12	pres't	.....	.....	.....	.....	.....	life ins. exam.
W. H. H.	13	pres't	1.2%	.....	.....	.....	.....	life ins. exam.
D. C. ]	14	pres't	1.4%	2.68g	.52g	pres.	neg.	slow growth child
C. S.	15	pres't	1.5%	.....	.....	tr.	neg.	appendicular absc.
A. E. H.	16	pres't	1.1%	.....	.....	neg.	neg.	nerve strain
T. K.	17	pres't	.9%	2.7g	2.2g	neg.	neg.	nerve strain
J. H.	18	pres't	1.5%	2.2g	1.7g ]	pres.	neg.	nerve strain
E. C. H. ]	19	pres't	1.4%	10.67g	1.1g	tr.	neg.	nerve strain

## THE DIAGNOSIS AND DIFFERENTIAL DIAGNOSIS OF GALLBLADDER AND BILEDUCT DISEASES\*

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FRANK B. WALKER, M. D.,  
Detroit.

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The rational treatment for any disease depends fundamentally on, first, a correct diagnosis, and secondly, an understanding of the pathologic process. The care of patients affected with gallbladder or bileduct diseases is no exception to this rule. Indeed, as we get better acquainted with the characteristics of these diseases we are able to explain certain symptomatic diseases and institute a line of treatment conducive to recovery or relief.

Affections of the biliary tract are by no means rare. Statistics inform us that they occur much more frequently than we are now ready or even willing to believe. The commonly understood signs of these diseases are usually so slow in appearing that when they unmistakably manifest their presence pathologic changes of serious importance have already taken place and the road to recovery is more difficult and insecure.

Gallbladder and bileduct surgery has wonderfully cleared up the diagnosis and pathology of upper abdominal diseases. We should be able now to not only diagnose affections of the biliary tract early, but also in many cases locate the site of offending calculi and determine the character of infections or malignant disease. We should be able in the majority of cases to make a special diagnosis; that is, we should be able to form indications for and against operative treatment.

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\*Read before the Michigan State Medical Society at the Saginaw meeting, May 15 and 16, 1907.

Statistics and postmortem findings have conclusively proven that gallstones may remain in an uninfected gallbladder for an indefinite period without exciting troublesome symptoms. But in some cases, and especially when set in motion or under the influence of infection, their presence becomes manifest. Nausea and occasional vomiting are present, and more or less uneasiness or severe pain is felt in the epigastric or right hypogastric region, radiating to the right shoulder or back. These symptoms often follow or are aggravated by a heavy meal and by certain articles of food, and are accompanied frequently by gas and acid eructations from the stomach, on account of which the diagnosis of gastric neuralgia or hyperacidity of the gastric juice is incorrectly made. There may be dyspnea and pain in the cardiac area suggesting so-called cardialgia. Again, the remitting fever accompanying movements of stones or septic infection of either the gallbladder or ducts, leads to the mistaken diagnosis of remittent fever.

In order to determine whether a gallbladder is responsible for these symptoms a physical examination should always be made. In doing this the examiner should stand on the right side of the recumbent patient, facing his legs, and palpate with the finger palms, not the tips, over the region of Robson's point. This spot is the midpoint between the ninth costal cartilage and the umbilicus. Tenderness exhibited in this region on deep inspiration is as signifi-



cant as the same sign about McBurney's point. Another posture of value in palpating the epigastric region is Gerster's position, in which the patient leans far forward and strongly flexes the thorax and lower limbs upon the abdomen. In this position of the patient the upper abdominal organs are pushed into relief and any tumefaction of them is more readily appreciated.

The passage of a stone into or through the bileducts is usually accompanied by a variety of symptoms, three of which are cardinal and diagnostic of the seat of trouble. They are sudden, severe pain at the stomach area of comparatively short duration, nausea and occasional vomiting with its abrupt disappearance and an almost immediate return to normal health, and sensitiveness at the gallbladder area. In addition to this diagnostic trio of symptoms, biliary colic is attended by fever and prostration, the gallbladder and liver may become enlarged, the feces clay-colored and mixed with calculi, the urine stained with bilirubin, and jaundice may supervene.

Pain is a variable symptom. It may be of a dull aching character or it may be most agonizing, comparable with ureteral colic and the severe cutting pains of childbirth. It is usually localized in the right hypochondriac region from which it may in severe forms extend widely over the abdomen or be referred to the right subscapular region or to the right side of the back at the level of the eleventh and twelfth dorsal vertebrae. During the siege of biliary colic the gallbladder is exquisitely tender to the palpating fingers, and even when the pain is of a dull aching character it is intensified by firm pressure over Robson's point.

Nausea and vomiting are prominent symptoms in gallstone colic and may persist even after the pain has subsided. In such cases there is strong probability

that a stone is impacted in the cystic duct or the small intestine.

The degree of fever due to septic infection of the ducts varies greatly. Occasionally it is preceded by a chill. In ordinary biliary colic the fever is intermittent in type, but in chronic cholangitis it is remittent.

In some instances prostration has been so marked as to cause difficulty in diagnosis. Death has been known to result from the agonizing pain of gallstone colic. If the attacks be frequent the patient's general health may deteriorate from inability to recuperate.

Although the normal gallbladder extends beyond the free margin of the liver, it cannot be appreciably palpated even when distended with bile. When enlarged in acute pathologic conditions, and especially when a calculus obstructs the cystic duct, it may be felt as a smooth, pyriform body projecting below the right costal arch. On close examination it will be found to have respiratory and lateral mobility and to give a dull percussion sound continuous with that from the liver. In some cases the enlarged gallbladder will push linguiform processes of the liver ahead of it. So closely related are these linguiform processes to biliary disease that they are considered to be diagnostic of enlarged gallbladder.

Enlargement of the liver is relatively rare in pure cholecystitis. It is a frequent accompaniment of common or hepatic duct disease and is in a measure diagnostic. In the absence of urobilin and other bile pigments due to obstructive jaundice, an excess of finely divided fat and gas bubbles cause the feces to assume a clay color and to be very offensive.

In so-called "regular cholelithiasis," calculi may be detected in the feces within a week following the "successful attack." In making the examinations the feces may be diluted with a mild

carbolic acid solution and poured upon a gauze strainer. Some experience is needed to differentiate true biliary calculi from olive oil globules, fruit seeds, fecal concretions, and other solid constituents of the fecal evacuations.

Contrary to popular opinion, jaundice is not a common symptom of gallstones. When the hepatic or the common bile-duct becomes obstructed directly by gallstones, or indirectly by tumors, jaundice will result and its intensity will depend on the extent and completeness of the obstruction.

Infection of the biliary tract is to be taken for granted in the presence of offending gallstones—that is, in connection with a history of gallstones, and the nature and extent of the infection is to be determined from the constitutional symptoms and from the presence of a distended, painful and very tender gallbladder, or of an enlarged painful and tender liver. Fever, increased pulse rate, pain, distention of the gallbladder, and nausea or vomiting point to acute cholecystitis, the intensity of the symptoms indicating within limits the grade of inflammation and the virulence of the infection. Rapidly increasing severity of these symptoms, with spreading tenderness, distention and rigidity of the abdomen, anxious and drawn expression, would denote gangrene of the gallbladder with local or diffuse peritonitis. If septic peritonitis develop, perforation has probably occurred.

If the gallbladder remains distended, with slight constitutional symptoms, cholecystitis has resulted in a chronic form, with adhesions, cicatrization, and possible stenosis of the cystic duct. It should be remembered that jaundice attends neither acute nor chronic cholecystitis unless the distended gallbladder compresses the common or hepatic ducts.

If repeated chills, intermittent or remittent fever, sweating, jaundice, emaciation, and a tendency to hemorrhage

from mucous surfaces appear, and the liver be enlarged, tender and painful, it is likely that cholangitis exists.

When, following a long-standing cholelithiasis, a hard, irregular shaped tumor grows rapidly at the site of the gallbladder and is accompanied early by rapid emaciation and ascites and later by jaundice, acholic stools and fever, the diagnosis of carcinoma of the gallbladder is indicated.

If jaundice appears slowly and steadily deepens in the presence of a distended gallbladder and enlarged liver, if rapid emaciation and ascites develop, and colicky pain, fever, and enlarged spleen be absent, the site of the cancer is in the ducts.

If an attack of gallstone colic be unsuccessful, and the stone fails to pass, its new site is to be determined from the condition of the gallbladder and from the presence or absence of jaundice and acholic stools.

If the gallbladder be undistended and there be only pain and attacks of colic, the stones are probably located in the gallbladder. If, in addition to pain and colic, there be distention of the gallbladder, it is probable that the stone has become impacted in and obstructed the cystic duct. Jaundice may appear also when the distended gallbladder presses upon and obstructs the hepatic or common bileducts, or when cholangitis exists.

If the gallbladder be undistended, and, in addition to the pain and colic, an increasing jaundice with clayey stools present, the stones are probably impacted in the hepatic or common bileducts. If jaundice be intermittent, and the color of the feces varies according to the presence and degree of jaundice, the stones probably act as ball valves in the common or hepatic duct.

In making a differential diagnosis of gallbladder and duct diseases, recourse may be had to gastric, urinal, and fecal



analyses and to the antecedent history of the case. If the pain be intensified by eating and blood shows in the vomitus or feces, gastric or duodenal ulcer is suggested. If the pain radiates downward to the groin, thigh, or testicle, and there be hematuria and frequent or painful urination, the renal organs are probably involved. If the colicky pain be relieved by a cathartic or enema it is likely intestinal. If there be a history of working in lead, and a leadline appears on the gums, the diagnosis is evident. If a tumor appears in the right hypochondriac or lumbar region, its shape, location above or behind the colon, and the capability of being replaced into the loin, will decide its origin. Gallbladder disease is to be differentiated from acute appendicitis by the history of previous attacks of colic, by the mobility of the tumor with respiration and its proximity to the liver, and the presence or absence of fever and jaundice.

The differential diagnosis of cholelithiasis with jaundice due to occlusion of the common bile duct by stones, from jaundice due to compression of the ducts by a tumor is made according to Courvoisier's law. That law declares that in occlusion of the bile ducts by stones the gallbladder is not distended, jaundice varies in intensity, the stools change in color, being brown at times, then white, the spleen is slightly enlarged and there is a history of colicky pain and intermittent fever. In compression of the duct the gallbladder is distended, jaundice deepens steadily, the stools are per-

sistently white, and there is an absence of colic, fever, and enlargement of the spleen.

The foregoing points in diagnosis based upon the subjective and objective symptoms and the physical and laboratory examinations, embrace the essence of our present knowledge of this subject, and will, if carefully applied, in the majority of cases lead to the selection of the appropriate line of treatment. In widely atypical and complicated cases, however, nothing short of exploratory incision will disclose the actual condition. The application of this method of diagnosis in gallbladder cases will depend on the gravity of the situation, its safety, and the expectancy of results, the same conditions that determine the propriety of exploratory incision for any abdominal disease. A wide distinction is made, however, between exploratory incision and exploratory puncture. The latter is mentioned only to be condemned.

Inasmuch as the principle of gallbladder and duct surgery is the principle of drainage and the removal of septic material and malignant growths, the bearing of diagnosis on the formation of indications for and against operative treatment is evident. The early diagnosis of gallstone disease may save a lifetime of invalidism. Seasonable diagnosis of a phlegmonous cholecystitis or stenosis of the common duct may avert perforation and restore a patient to safety. Wrong or tardy diagnoses of gallbladder and bile duct cases affect unfavorably from 5 to 10 per cent of the population.

#### Discussion.

**Dr. F. W. Robbins, Detroit:** Diagnosis in simple cases is quite a different matter from complicated and obscure cases. Cites a case of tumor in the cecal region, whose identity was uncertain, but which at operation proved to be due to a misplaced kidney and an elongated, adherent gallbladder.

**Dr. J. A. Attridge, Detroit,** mentioned a case of irritation of the urinary bladder, which was not explained until traced to latent gall-bladder disease.

**Dr. H. W. Yates, Detroit:** It is important to have before operation as correct idea of the con-

ditions as it is possible to attain by all means in one's power. In this way one is trained to better diagnosis, and also is able to conduct the operation more expeditiously and accurately.

**Dr. C. B. G. de Nancrede, Ann Arbor:** Ninety per cent of cases of gall-stones do not give the picture supposed to be typical. If one waits for the text-book symptom-complex, he will constantly miss cases of gall-stones. According to the experience in cases of common duct obstruction, it is seldom possible to predict when and how it will occur, and hence it is unwise in any given case to forecast exact conditions.



## INDIVIDUAL VIEWPOINTS IN MEDICINE\*

CHARLES B. STOCKWELL, M. D.,  
Port Huron.

In the work of our state and county medical societies there is a call for men from every point of the compass. The men from the north and south are not sufficient. The men from the east and west are needed as well. The mediæval man was a one-point-of-the-compass man, whose opinions called for nothing from the other points. His knowledge was a product arising from ignorance. To him all knowledge was limited to a brain domed by his own calvaria. Many of his descendants have come down to the present. In this era he is out of place. This is an age of give and take—an age when the whole compass should be "boxed" to get the greatest good out of the greatest number and for the greatest number.

As you well know, the medical men of this state to a large extent have begun the work of fixing, continuing, and enlarging the knowledge acquired at their Alma Maters. We have begun to turn county societies into schools of instruction and schools for postgraduate work. Here every physician should be a servant to his guild. In the role of a servant he is bound to be a worker, a teacher, aye, even a master. Does anyone, starting out even poor in advantages and with a limited education, doubt that he is fitted to convey information to his fellows? If so, let him remember that if he has an observant eye and just an ordinary, plodding, painstaking brain, he has a point of view on the earth's great compass card different from every other man.

Knowledge is a composite. It is a mass of units contributed by men with eyes backed with brains,—eyes with their thousand view points flashing back to that potential mother brain, the observations from which are born all the sciences and arts which today enrich the world. One idea may be the unit which gleams with the flash of a diamond. Another may present only the dull blackness of a block of coal, yet the heat and warmth contained in the one form of carbon will offset the brilliancy of the other. So with ideas, all are of value. No medical society is complete and effective which does not receive something of the strength and worth in ideas which every member possesses. If these are missing, there is a sensible loss in power. No machine has "go" in it which lacks bar, bolt, or wheel. An opinion may be faulty, but the discussion which leads to the discovery of fault or flaw, gives different points of view and so fixes what is true and valuable.

Perhaps some one may doubt as to all possessing mental values,—values which carry weight. Several years ago I met one of the wise men,—there are many,—a noted specialist of Great Britain, who asked for an hour of my time, I being but a few years removed from my college days, that he might get some points from me regarding his specialty. Deprecating the idea of enlightening one so great in his specialty, the wise one said, "Stop, I never converse with a medical man regarding my specialty without being taught things I need to know."

One point of view, even a thousand

\*Read before the Lapeer County Medical Society April 10, 1907.

points of view, can never give a comprehensive view of any great subject (like that of medicine) with all of its mysteries and enigmas. Perhaps you have read that scathing rebuke to the one-point-of-view-man in theology, in Sam Walter Foss's poem, "Odium Theologicum":

"They met and they talked where the cross roads meet,

Four men from the four winds come,  
And they talked of the horse, for they loved the theme,

And never a man was dumb.  
And the man from the North loved the strength of the horse,

And the man from the East his pace,  
And the man from the South loved the speed of the horse,

And the man from the West his grace.

So these four men from the four winds come,

Each paused a space in his course,  
And smiled in the face of his fellow-man

And lovingly talked of the horse.  
Then each man parted and went his way  
As their different courses ran,  
And each man journeyed with peace in his heart

And loving his fellow-man.

They met the next year where the cross-roads meet,

Four men from the four winds come,  
And it chanced as they met that they talked of God,

And never a man was dumb.  
One imaged God in the shape of a man,  
A spirit did one insist,  
One said that Nature itself was God,  
One said that He didn't exist.

But they lashed each other with tongues that stung,

That smote as, with a rod;  
Each glared in the face of his fellow-man,

And wrathfully talked of God.  
Then each man parted and went his way  
As their different courses ran,  
And each man journeyed with war in his heart,  
And hating his fellow-man.

The horse suits a one-point-of-view man in size. In a minute he can walk around him, In an hour he can know his gait, his speed, his disposition. But turn to the maker of the universe, who recognizes neither the beginning or ending of time, nor the bounds of space. Thought is lost and reason fades to nothing, yet arrogant ignorance balloons the self-centered mind and insists that one brain with one point of view is equal to the solving of the mightiest mysteries. As in theology, so in medicine we are dealing with a subject so deep that no plummet can fully fathom it, so lofty that no eye can fully penetrate its heights, yet for the discoverer and explorer the future holds wonderful revelations.

This work is not for one man, working in isolation or secrecy. It is the work of every man coming in from the four winds, working in harmony with every man, gathering with patience something from every point of view, some observation caught in humble every-day work, some bit of knowledge revealed to the painstaking mind,—all brought in to be contributed to the use of his fellow-workers.

Just because a man is barely out of his college doors does not mean that opportunities for important observations and the accumulation of rare knowledge will not come to him as well as to the man who has spanned many years of active medical practice. Let me cite a case in point. A young man read a thesis at the University of Michigan, at his graduation in 1858. The theories contained therein were quoted as authority for twenty-five years in lectures delivered at his Alma Mater. Within a

year after his graduation he was called to see a man in whose brain the breech-pin from a bursted gun had lodged. He removed it, and within a week had demonstrated the existence of tactile sensation within the cranium, a fact not previously known. Further, he was not willing, like the others present, to wait for the man to die; where a chance missile had gone without producing death, he did not fear to go. His action was followed by a discovery, and a life was preserved for many years. There are observations and deductions made by every man which are wanted. Give them to the medical profession, that it may be wiser. Give them to the world that it may be better in sanitation and in health. Some may object, because to the medical society comes the man with the insistent shrill note of the fife, or with the brass of the tuba or the boom of the bass drum. A band needs all of these instruments to render efficient music.

In our observations two opinions may not agree till they are scientifically compared. The rain in the North descends

in white crystals; the rain in the South in liquid globules. One looks at the phenomenon at a temperature below 32° Fahrenheit, the other at a temperature above that point. To the man in the East the sun rises from the Ocean; to the man in the West it sinks beyond the ocean's rim.

In the common storehouse to which we bring our gleanings, things apparently paradoxical are being worked out into their reasonable and true values.

Finally let our work be attended with enthusiasm and ambition. We should be like Billy Gulick whose ambition, starting out with the desire for and subsequent possession of a dog, led up, step by step, to a desire for the presidency.

In the words of Foss's poem:

"We all are Billy Gulicks, for

Full wide his tribe is spread,

You find a man who's satisfied,

You find a man who's dead.

And if you find a live man

Who for nothing further sighs,

Though in the pink-red bloom of health,

He's dead before he dies."

**The Average Length of Practice of the American Physician.**—The necrology department of the *Journal of the American Medical Association* is probably as complete as any such department can be made. In it were recorded 2,045 deaths of physicians in the United States and Canada in 1905. There is an estimated medical population of 215,000, hence the rate of mortality is 16.36, not differing much from previous years; 14.74 in 1902; 13.73 in 1903, and 17.14 in 1904. It is astonishing that death, so unexpected in the individual, is so regular and constant in the mass. The youngest doctor reported was 23; probably there were younger men who died, but being so new in their profession their deaths were not forwarded. The oldest was 104, a fairly ripe age for a nerve-racking profession. In practice the time varied from nothing to seventy-five years; there were five others who had practiced over sev-

enty years. The average length of practice is thirty-one years and one month, quite a remarkable length considering the fact that so many physicians are exposed to death, disease, exposure, and exhaustion constantly. The nerve racking character of medical practice is seen in the list of causes of death, for heart disease in various phases leads all other causes with 202 cases. Cerebral hæmorrhage is second, with 153 deaths; pneumonia, 141; tuberculosis, 102; nephritis, 100; senile debility, 80; accidents, 72; suicides, 46; typhoid fever, 41; malignant disease, 34; septicæmia, 28; appendicitis, 27; etc. It is interesting to note the methods of suicide which show that no special difference exists when the thought of self-destruction occurs. The introduction of new men into the profession is still greater than the outgo to a considerable proportion.—*The Medical Times*.



## A CASE OF EMPYEMA WITH DIFFICULTIES.\*

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BY FRANK B. FLORENTINE, M. D.  
Saginaw.

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Fred H., age 14, of healthy parents, of a family of four, including my patient, who, too, was formerly very healthy. On March 21, 1906, after an unusually severe course of lobar pneumonia, I found him in an extreme state of prostration, apparently in a dying condition,—emaciated, pale, sweaty, and somewhat livid, semi-comatose, with a very feeble and rapid pulse, and with intense dyspnea. On examination, I found his right pleural cavity filled with an effusion, compressing his right lung against the left, and displacing the heart. There was bulging of the chest wall, and shallow, widened, intercostal spaces, almost protruding in some places, and somewhat edematous. With an exploratory needle I obtained a thick, creamy, purulent effusion, which I subsequently found to contain pneumococci. Here my trouble—"difficulties"—commenced. After carefully explaining his serious condition to his parents, pointing out the necessity of an immediate relief of the pathological gathering, in order to save his life, I was nevertheless emphatically refused any form of operation, further than what I had already done with my exploratory needle. After prescribing a sponge bath, dry clothes, fresh air, strychnine, egg albumen and milk, I left the patient, in great danger. However, the next day his father came to my office and informed me that his son was about the same, and that they had changed their mind, and now wanted me

to treat the case as I saw fit. I immediately ordered the ambulance and sent him to St. Mary's Hospital.

Shortly after his arrival there, I aspirated his side and removed three and one-half pints of creamy pus, which greatly relieved him; and then he gradually improved in every way for about a week, under the usual care and treatment in such cases, until a reaccumulation of pus again disturbed his breathing and otherwise distressed him. On the 30th, nine days after the first tapping, I again removed three and a half pints of pus, which was followed by the usual relief and gradual improvement for a few days, but somewhat more marked at this time. However, on April 9 I again removed three pints with marked relief; and five days after, on the 14th, as I found him much improved generally, I concluded to operate on him more radically. Under full anesthesia I resected about an inch of the eighth rib, a little posterior to the mid-axillary line, and after making a small incision in the pleura, in order to bring about a gradual flow of the more liquid, thin effusion (which proved again to be a very large quantity, perhaps two or three quarts), I then enlarged my incision in order to drain out residual fibrinous masses, lumps, etc.; after thoroughly emptying the pleural cavity, I inserted two large-sized fenestrated drainage tubes, securely fastened by a large safety-pin, and covered the whole side with the usual dressing in such cases,—gauze, compress, etc., secured with a snug roller bandage.

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\*Read before the Michigan State Medical Society at Saginaw, May 15, 16, 1907, and approved for publication by the Publication Committee.

On the 17th I dressed the wound for the first time since my radical operation. I found the drainage tubes removed and the wound discharging freely, but notwithstanding the patient was doing fairly well, he was quite delirious. I put in new tubes and dressed the wound as before, but on two subsequent dressings, finding again the tubes removed, I concluded to apply an especial bandage, practically the same, with the exception of covering the whole dressing with a large sheet of oil-silk, secured with long, wide, adhesive strips; and then the whole covered with the usual roller-bandage in the form of a figure eight. After that I had no further trouble about his removing the tubes or interfering with the dressing in any way; he then

gradually improved, without any drawback, until I discharged him perfectly well, June 8. He left the hospital May 9 with strict instruction to live an altogether outdoor life, with the exception of taking his meals and sleeping inside the house. He was also instructed to take deep inspirations several times a day while outside; in fact, I actually saw that these instructions were carried out, as I think it most imperative in these cases.

Résumé:—I believe in early operation, always preceded by aspiration in these cases; in resection of rib or ribs to other methods; in large drainage tubes. However, I do not believe in irrigation, except in cases of fetid discharge.

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## WHEREIN CAN THE TRAINED SPECIALIST AID THE GENERAL PRACTITIONER?\*

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EDWARD J. BERNSTEIN, M. D.

Kalamazoo.

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At first blush, it would seem the veriest absurdity to ask this question, but an almost daily experience in the lack of appreciation of the wide gulf separating the examination by the scientifically trained man as opposed to the inefficient, as an aid to establish a diagnosis of disease, even remote from local causes, emphasizes the need of an occasional reminder.

It seems unnecessary at this late day to tell you that many intractable headaches are due to errors of refraction, but it is far from redundant to emphasize the inefficiency of an untrained man

whose sole attraction to refraction is the knowledge that jewelry and spectacles pay the vendor a profit beyond those of ordinary merchandise, who gives up peddling machines or patent medicines or leaves a dry goods counter with no further training than is obtained by a correspondence school or a six weeks' course at some so-called "school of optometry," after which thorough grounding he graduates as a "doctor" of optics. Such a one is utterly unable to appreciate the gravity of the task set before him and like the proverbial fool "rushes in where angels fear to tread."

Would any merchant entrust a set of books to a graduate of a business col-

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lege after a six months' course? Do you believe that an apothecary, with his four years' course in a recognized school of pharmacy, combined with a four years' training in a drug store, is capable of diagnosis or treatment of disease? Yet this is exactly what the spectacle dealer essays to do. Almost the same restriction applies to the six weeks' course medical specialist.

Their position reminds one of the doggerel of the Roosevelt Bears:

"We're freshmen now and green at that,  
We're here to study right off the bat;  
We learn new things at a lively rate  
And by six o'clock we'll graduate."

First of all, what should be demanded of one who assumes the role of an oculist? To my way of thinking, he should be a graduate of medicine and have had either one or two years' experience as a resident in a first-class general hospital or some years' general practice; added to this he should have at least one or two years' special training, both here and abroad. It is only after contact with the thoroughly trained men we meet on the other side that one sees how much is required of one and how little he knows. The oculist must stand in the capacity of a consultant and no one can be too thoroughly trained for such.

I am aware that many men refer to the oculist only in those very apparent cases of grave disorders of the eyes, which do not yield to boric acid solutions, or where loss of vision almost sends the patient, of his own volition, to the specialist. Some physicians think that in those patients who complain of headache or minor defect in vision the spectacle dealer does equally as well, and thus saves the patient the fee. Just how short-sighted such economy is, I shall attempt to portray. I shall not speak of such symptoms which from

their nature call, even from the most careless, for the specialist's care, *but confine my remarks to cases in which superficial examination will often show almost perfect central vision both for near and far.*

Do you recall, from your student days at the medical school, that 20/20 vision,—the ordinary standard,—is compatible with such conditions as Choked Disc—proclaiming loudly that some serious intracranial disease is present, or Retinitis Pigmentosa, a disease gradual in its onset and progressively leading to complete loss of the whole range of vision, with atrophy of the optic nerve? That chronic glaucoma may still show excellent central vision for a long time, yet absolute blindness is the ultimate goal unless checked by appropriate treatment, either by continual use of eserine, iridectomy, sclerotomy, or resection of the first cervical ganglion of the sympathetic? Do you not remember, also, Disseminated Choroiditis may likewise be present and yet the same condition as to sight be present? That severe Retinal Hemorrhages may be compatible with fairly good central sight? How is it possible for the untrained man to recognize these? Unless you hold that a superficial man can in six weeks accomplish what the well trained can scarcely in six years!

The question of the giving of glasses is not the simple thing that most medical men believe. The eye is not a camera obscura requiring a definite lens and a definite distance to focus light upon the sensitive screen; it is a living organ as incapable of mathematic precision as any other organ of the body. Nature does not deal in geometry in the human frame; it demands that every consideration be given to personal idiosyncrasy, to pathological conditions elsewhere or merely reflected in organs of special sense. The very best men are far from absolutely sure in their re-



fraction; how much less must be those less well-grounded?

At this point let me reiterate a conviction of the result of fifteen years' special work, and that is that the estimation of refraction without the use of a mydriatic in those under fifty years of age is more or less haphazard. I have never attempted this without after-regrets. Furthermore, it is an utterly fallacious statement of the spectacle dealer, sometimes finding an echo among doctors, that its use under skilled care is likely to have untoward results. Certainly I have never seen them, though I have seen one or two cases of systemic poisoning in my own practice and know of two others in the practice of a colleague, but both of these were from an impure drug, and had no permanent ill effect. Without its use many pathological conditions are likely to escape notice, and one should always know the absolute or static refraction of his cases.

Quite aside from the physical side of refraction comes the subtle question of the condition of binocular fixation, depending upon proper development of fusion centres and properly acting external muscles. That this is not a simple question needs only a reference to present day ophthalmic literature to show one how the best minds are still at sea in their attempt to grapple with this serious question. You all know how a few years ago many were sure that the solution lay in graduated tenotomy; this in turn gave way to other muscle operation, to prism exercise, wearing of prisms, etc. And the goal is not yet in sight. In short, this question is one of the burning ones, occupying the best thought of the best thinkers. Is it at all possible that a six weeks man can even appreciate the importance of this question?

Approaching now the question of the strictly medical side, permit me to relate to you a series of cases out of my

own experience in a not very large practice in a comparatively few months. I am only referring now to cases in which more or less perfect central vision was present.

Two cases of Retinitis Pigmentosa. Both had been wearing glasses for their trouble, given by so-called graduate opticians; they came to me only after great damage had been done. True, no one can cure this disorder, but much can be done to guide them and set them on the proper track.

Two cases of Choked Disc. One proved to be a case of cerebral new growth and the other beginning Tubercular Meningitis.

Several cases of Syphilitic Endarteritis of retinal vessels, in which the diagnosis of late manifestations of the primary trouble could only be made out on painstaking ophthalmoscopic investigation.

One case of Diabetes Mellitus, with beginning Diabetic Retinitis, diagnosed by the background alone. The patient had not consulted any medical man for this till sight failed for reading, though he had still good distant sight.

Two cases of nephritis in young children before advent of the typical pathological appearance of the retina. The attention of the medical advisor being called to this lesion, the children were early placed upon appropriate treatment.

One case of frank Albuminuric Retinitis, pointing to Interstitial Nephritis. This man had a good central vision and was attending to his duty as a bookkeeper. I was able to successfully demonstrate to his family doctor his serious condition and told him that the patient had but a short while to live,—less than 18 months. The patient died within 6 months. At first his doctor disagreed totally in my diagnosis, for he had examined the urine carefully two or three times; it was only after I insisted on my point and that it was necessary to

examine it not two or three times, but a dozen times if need be, that we finally agreed that my diagnosis was correct.

Four cases of *Tabes Dorsalis*. You will recall that the ocular symptoms of this dreadful disease are often the very first to appear, the irregular pupillary reaction, the insufficiency of some of the external muscles, the beginning subtle changes in the disc, point at once to the trained oculist the nature of the trouble.

Here let me report an interesting case in the practice of W. Uthoff (Klinik at Breslau) which I report from the abstract in the current number of "*Ophthalmology*."

A man, aged 40, complained for two years of pressure in the head, vertigo, weakness, palpitations of the heart. Face, lips, mucous membranes and upper and lower limbs quite cyanotic. His vision was normal, but from the fundus a diagnosis of Polycythemia was made, which led to a corroborative test of the blood. Blood examination showed the number of red corpuscles very much increased, ten to twelve millions in 1 c. mm. and Sp. Gr. increased. Albuminuria with hyaline cylinders, spleen enlarged, arteries high tension and hypertrophy of left ventricle. The whole quantity of blood increased to a regular plethora. Patient was greatly relieved by copious venesection.

In the diagnosis of Insular Sclerosis, Edw. Muller (*Neur. Centr.*, July, 1905) says that a peculiar affection of the optic nerve, consisting of a simple atrophic discoloration of the temporal side of the papilla, is one of the most certain and most important signs of multiple sclerosis.

Often we are able to make the diagnosis of serious cardiac disease, such as insufficiency or stenosis of the aorta or mitral valve, or endocarditis, simply from the intraocular findings.

Again let me call to your minds what you may have forgotten, and that is that

Chronic Glaucoma may be perfectly compatible with excellent central vision, and it is only when the accurate taking of the field of vision, in connection with the ophthalmoscopic picture, is correctly interpreted that we can make a diagnosis and thus save sight. It is a frequent occurrence to have the inefficient misinterpret the perfectly physiological cupping of the nerve head for Glaucoma. It is the happy function of the conscientious oculist to save the patient the worse than useless misery and unhappiness of a needless operation.

Anemia, and even leukemia, are oftentimes first diagnosticated by the oculist, only to be corroborated by the blood examination. Among the earliest signs of Graves' disease are the ocular lesions, more especially the swelling of the upper lid as pointed out by Gifford, of Omaha.

Possibly one of the greatest triumphs of the ophthalmoscope is the diagnosis of cerebral tumors. Due to the initiative of Sir Victor Horsley and followed by a number of men in America and on the continent, a large number of cases of brain tumors have been successfully operated upon. As a result of his work, a number of cases of beginning descending optic neuritis, which almost invariably lead to complete optic atrophy and consequent blindness have been saved by opening the dura. He reported quite a list at the last meeting of the British Medical Association, which met at Toronto last summer. In this country Spiller and Frazer have done like excellent work.

In a recent number of the *Med. Klinik*, there appears an article by W. Seiffer upon operable tumors of the cerebellum, in which he makes the point that operable cases of this region are accompanied by choked disc and much headache, while the inoperative ones cause spastic hemiparesis, with exaggeration of reflexes and Babinski's sign, also alternating hemiplegia, i. e., paralysis of

one or more cranial nerves on one side and the extremities on the other. The posterior fossa cases have frequently a total and permanent ophthalmoplegia, which is not total with cerebellar tumors, bilateral spastic paresis of the extremities (seldom in cerebellar tumors), eventually hemitremor and hemianesthesia.

Spitzer regards conjugate deviation of head and eyes toward the sound side as the chief sign of an affection of the pons.

Inasmuch as such excellent results are now obtained by surgical procedure following early diagnosis by ophthalmoscopic findings, it may prove interesting to quote the following:

Krause, Fedor, Berlin (Seventy-eighth Congress of German Naturalists and Physicians, 1906. *Deutsche Medizinische Wochenschrift*, 1906, No. 49, p. 2011), cured a man, aged 35, by extirpation of a tumor of the occipital lobe in two stages, with disappearance of hemianopia.

Schultze, Bonn, gave the following resume: Out of 97 brain tumors, 19 were operated upon, but only one case, a tumor of the cerebellum, was cured and remained so for several years. In one case considerable improvement was obtained by puncture of the ventricles, according to Neisser, so that papillitis, intense amblyopia and headache subsided for three-quarters of a year, when the patient died. In a few cases the affections were relieved for several months by palliative trephining.

Oppenheim, H., Berlin: Since 1903, 27 of his cases were operated on by a number of surgeons. Three (11 per cent.) were cured, 6 (22.2 per cent.) temporarily improved, 15 (55.5 per cent.) died, the palliative trephining in 3 gave uncertain results.

In 23 out of the 27 cases his general and local diagnoses were correct. According to his experience, out of 10 or 9 correctly diagnosed cases, carefully selected for surgical treatment, only one has any prospects of perfect recovery. The doctrine of von Bergmann, that brain surgery is a surgery of the central gyri has lost its value by recent experiences. None of Oppenheim's cured cases belonged in this category.

SAENGER, Hamburg, spoke on his experience in 19 cases of palliative trephining. In 2, results

were not attained until the openings were enlarged and more cerebrospinal fluid let out. In 2, it was unsuccessful, in 1 it was immediately followed by stupor and death. In all others the relief was evident: headache, vomiting, convulsions and other symptoms of cerebral pressure, as papillitis, abated and subsided entirely after a few days in some of the cases.

The commencement of impairment of vision is the time for operating. If it is done later, atrophy of the optic nerve is liable to occur. The part of the skull over the probable site of the tumor is to be trephined. If no localized diagnosis is possible the right parietal region is to be selected, as from there the least damage is to be expected. Lumbar and ventricular punctures are not nearly as effectual as trephining the skull.

SAENGER sums up: Palliative trephining of the skull, performed by an experienced surgeon, today is a very beneficial operation, almost without danger, and is to be recommended in every case of inoperable brain tumor to relieve the sufferings of the patient and especially to save him from threatening blindness.

NONNE, Hamburg, warns against lumbar puncture in tumors of the brain.

An important and not infrequent function of the oculist is to make the diagnosis of toxemia, from its various causes, either Tobacco, Alcohol (Ethyl or Methyl), Quinine, or other poisons, not forgetting the well-known auto-intoxications from the intestinal tract. Do not imagine this latter is an infrequent occurrence; dozens of cases referred for glasses, which would have gotten them and with no good therefrom, except the financial gain of the dealer, have been set on the right path through the family doctor, guided by the reliable oculist.

In speaking of tobacco amblyopia I should like to go on record as never having seen a case due to cigarette smoking, and this after a long service in the clinics at Vienna, Paris, Berlin, and Moorfield (London). I am especially anxious to emphasize this fact, as so much has been said of the evil of cigarette smoking. It is an established fact that cigarettes are the mildest form of tobacco. There is no doubt that their



use by adolescents is pernicious, but I can find no authentic case on record where their rational use in the mature individual has been cause of injury. I speak of use, not abuse. Even eating may be abused.

Trichinosis and cysticercus are often first seen by the oculist. Diseases of the liver, cirrhosis, etc., are often accompanied by hemeralopia, concentric delimitation of the fields of vision, color-blindness, icterus of the sclera.

From the findings of the ophthalmoscope even disease of the sexual organs may be diagnosed. That there is a distinct relation between the uterus and the eye needs but to be mentioned to recall that excellent work on Uterus und

Auge by Herman Cohn, of Breslau. Without burdening you with a more lengthy disquisition upon a question which tempts one unduly, I may say in conclusion that there is hardly a disease of the body from measles and mumps, which, by the way, bring many serious eye complications in their train, to syphilis and tuberculosis, which have not their well-known eye symptoms. Can he who only looks through the sight-hole of the ophthalmoscope, or has not the most thorough training be expected to fulfill the high standard which should be that of a real help to his fellow practitioners? Is it not another proof, if any were needed, that whatever is worth doing is only worth doing well?

**Styes.**—Styes occur at all ages, but they are more common in children and young adults, and often appear in crops. As a rule, the patient is out of health, and suffers from constipation, acne spots, or errors of refraction, such as hypermetropia or hypermetropic astigmatism. Until suppuration actually occurs, hot boric acid fomentations should be used, and the patient should be purged. When suppuration has occurred, the eyelash, which is usually in the center of the yellow area where the pus is pointing, should be pulled out, and then, if necessary, the swelling should be incised, and again hot boric acid fomentations applied. Syrupus ferri phosphatis, in drachm doses, should be given twice or three times daily after food. Calcium sulphide, in doses varying from 1/8 to 1/2 a grain for an adult, given twice daily, has been recommended in cases of recurrent styes. When the more acute inflammatory symptoms have disappeared, the following ointment may be prescribed:

Unguenti hydrargyri oxidi flavi.....pt. j  
Petrolati .....pt. ij  
Ft. ung.

A small piece of the ointment to be applied to the margins of the eyelids with a fine camel hair brush night and morning. All errors of refraction must be corrected by the use of appropriate glasses. A generous diet, plenty of open-air exercise, and, if possible, a change of air are also indicated.—*The Practitioner*, March, 1907.

**Pruritus Ani.**—Drueck says that when the pruritus is due to proctitis, hemorrhoids, fissure, ulceration, fistula, prolapse, or polypus, and the patient refuses to submit to surgical treatment, or in senile, debilitated, or hemorrhagic subjects, much relief may be given by the use of the following:

Calomel .....gr. 30  
Menthol .....gr. 10 to 20  
Vaseline .....3 i

Sign.—Apply after each bowel movement, bathing the surface carefully, and sopping it dry. For eczema of the anus he employs:

Picis liquidæ .....3iv  
Ung. belladonna .....3ii  
Ac. carbolicæ .....m.x  
Adeps lanæ .....3 ii

Bathe the parts repeatedly in water as hot as can be borne, and in green soap, to remove the thickened scales, and to deplete the local circulation. In exaggerated cases, a solution of caustic potash, five grains to the ounce, may be used. A cloth may be used to sop the hot water on the parts, but do not allow any rubbing.—*Chicago Medical Recorder*.

## The Journal of the Michigan State Medical Society

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### Editorial

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Two factors are retarding the progress of medicine in Detroit.—One is the lack of a reference library and the other is the lack of a large free hospital, conducted by a limited staff. Cities which are of the greatest influence in the development of medicine possess both of these requisites. Philadelphia, Baltimore, Boston, New York and Chicago, for example, have enriched our literature and moulded our progress; their contributions have been and will continue to be conspicuous, because their physicians have great opportunities for the study of cases that pour into large free hospitals; the library enables them to direct their work by the light of previous authorities, and the hospital laboratories offer facilities for real scientific data.

As mentioned in these columns in a previous issue, certain kinds of medical essays are of superior value. Those which record experimental and investigative work add new knowledge to our store; those which are analytical, critical, or statistical, confirm or modify pre-existing ideas. The medical literature coming from the cities cited above teems with valuable articles of these varieties, because their authors have extensive public clinics, whose material can be utilized at will. It is not so easy in private work; the thousand and one points of delicacy that arise in dealing

with private patients preclude the routine which is so necessary for thorough reports. In short, the material in private hospitals is available only in part, and that with difficulty. Occasionally, after much labor and time, a series of cases is observed and reported; rarely a bit of investigative work is carried out, despite the dearth of facilities; sometimes an unusual case incites a study of similar ones in literature, but at what an expense of time, money, and travel, in order to consult the necessary references!

Few men have large enough private practices to afford material for extensive contributions to literature; those few have, first, little time for the necessary labor, and second, small facilities in the scurry of house-to-house visits, or the manifold systems (which is lack of system) prevailing in private hospitals. The very first necessity in collective, analytical, or critical essays is complete records. How many physicians in Detroit possess such, and what private hospital can show record-files available for study?

It is a pleasure to acknowledge the few valuable papers that have proceeded from Michigan's greatest city. The number is increasing, because more and more men are willing to override the obstacles besetting their paths. But in their progress they make matters no easier; no move is made to remedy the situation; each man travels the same rough road of his predecessor. The veterans are content with the ways they have always known; the recruit is powerless, no matter how dissatisfied, because to complain is to criticize, and to criticize is fatal.

It has been said that on the map of medical literature Detroit does not exist. This is an exaggerated criticism, yet where there is so much smoke there must be some fire, and there is enough truth in the reproach to arouse sombre reflection. It is true that there is no library, and this is a grave defect, but so easily remediable that it is a pity no

action is taken. It is also true that hospital records are next to useless for purposes of medical research, but this is a defect common to private hospitals. Even this is susceptible to improvement. It is again true that there is no large free clinic, in sole charge of regular physicians, subject to the routine of modern superintendence. This is a factor most difficult to change, because it so largely depends upon the laity. Yet the initiative must come from physicians. Patient and unremitting repetition, with the proof of our hospital inadequacy, might at least produce some effect. Seldom is a gift given until it is wanted. Might it not be wise, first to want, and then to let that want be known?



**The Keeley "Cure."**—Although we do not hear as much these days of the "gold cure" as formerly, a recent exposure of this colossal fake is not without interest. A pamphlet has been sent us, by whom it does not appear, giving in full the opinion of Judge Cochran of the United States Circuit Court of Appeals in the case of the *Memphis Keeley Institute*, vs. *The Leslie E. Keeley Company*, appellants, vs. *The Leslie E. Keeley Company*, appellee.

From this opinion it appears that the Memphis concern had been enjoined by the original Keeley Company from claiming that it had a right to use the Keeley remedies, and the contract between the two had been cancelled. This decision had been appealed by the Memphis Institute on the ground that the Keeley Company has built up and maintained its business by fraudulent representations; did not, in fact, come into court "with clean hands," and therefore is not entitled to the protection which had been granted it by the lower court. The higher court maintained that there was abundant evidence to prove that the Keeley business obtained its start and has reached its eminence by gross mis-

representations and that a company thus preying upon the public should not be protected in its frauds by the court. For these reasons, the appeal was decided in favor of the Memphis Institute.

The evidence showed conclusively that these remedies for the liquor, opium and tobacco habits are advertised as the "Double Chloride of Gold Cure," and that the company also has a remedy for neurasthenia known as "Gold Neurotine." To make the claim that these medicines contain gold more impressive, the labels are in gold and contain the words: "Gold cure for opium habit, gold cure for drunkenness, gold cure for tobacco habit"—all in gold. It is also stated on the labels: "Gold is especially beneficial in its action on the mental forces. It gives the patient courage, hope and renewed will power; and is the only medical agent that will effectually and forever relieve all craving or necessity for alcohol in any form. The remedy can in no way act injuriously on the patient." Quotations are also made from the literature sent out by the company, showing that the statement that the remedies contain gold is again and again made.

The evidence showed, as every physician knows, that there is no such salt as the "double chloride of gold," and furthermore that there is no gold in any form whatsoever in any of the so-called remedies.

Interesting light was thrown on the formation of the original Keeley Company by a witness, one F. B. Hargraves. Before connecting himself with Leslie E. Keeley, Hargraves had been a preacher in the Wesleyan Methodist Church in England and then a lawyer. This is another instance of the statement which Dr. McCormack made in his address last fall, to the effect that many of the quack doctors have previously been quack preachers. From the evidence of this man Hargraves, it appears that in 1880,



both he and Keeley were residing in Dwight, Ill. Independently they saw some newspaper reference to a cure for drunkenness and decided to try it on one Pat Conafry, saloonkeeper of that place. Pat took the stuff and in about a week lost his desire for whiskey. However, he made strenuous efforts to drink again and "one Sunday got a drink to stick and became gloriously drunk," after which he would take the medicine no more. This test was sufficient for Hargraves, who formed a partnership with Keeley. This was the origin of the gold cure, the company being known as that of "Leslie E. Keeley, M. D." The cure was then tried with good effect on Major Campbell, appropriately of Kentucky, and he came into the firm. In 1881, a company with the same name was formed between Keeley, Hargraves, J. R. Oughton, a drug clerk, Major C. J. Judd and Fr. James Halpin, a catholic priest, of Dwight. Keeley did not appear personally and would say, "I am the big spider in the back office; always throw a little mystery around me; keep me in the background." The drug clerk was the manufacturer and Hargraves the advertiser.

Hargraves further testified that he knew the formula and that the remedies contained no gold. Gold had been used but once. The third patient treated, a sewing machine agent, was given chloride of gold and sodium in pill form. It nearly killed the man and was never afterwards employed. Some other remedy was hit upon, but they never gave up the name, "gold cure." Keeley claimed that it sounded well and justified its use by saying that there is "gold in everything, gold in sea water, in mud—in everything. There is a trace of gold in it and that is enough." In the safe at the laboratory they kept a few drams of gold chloride and sodium chloride

and these were shown to visitors as samples of the ingredients of the sterling remedies. Hargraves went on to relate that on one occasion gold was put into a certain number of bottles, the latter being arranged so that they would be selected by the agent of a Chicago chemist, who had been engaged to make an analysis. This gold was, of course, found and the certificate of the chemist was widely used in advertising.

The testimony used to controvert that of Hargraves seemed unconvincing to Judge Cochran, justly so as appears from his review of it.

The Keeley Company held further that even if the remedies did not contain gold, this is no reason why they should not be protected. In denying their right to protection, the Judge quotes the well-known case of the Fig Syrup Company against Stearns restraining them from using the name "Fig Syrup." The injunction was not granted, because it was shown that the original company fraudulently represented to the public that the chief ingredient was the syrup of figs, although there was but a trace of the latter, the main ingredient being senna. Judge Taft in denying the injunction said:

"This is a fraud upon the public. It is true, it may be a harmless humbug to palm off upon the public as syrup of figs what is syrup of senna, but it is nevertheless of such a character that a court of equity will not encourage it by extending any relief to the person who seeks to protect a business which has grown out of and is dependent upon such deceit."

In no branch of business will this principle of refusal to protect a fraudulent article be more often applicable than in the manufacture of patent medicines. There has been at least one other decision along the same line and it is to be hoped that more will follow.

**Should the State Society meet in the fall?**—For some time there has been a discussion among the officers of the American Medical Association and those of the various state organizations, regarding the advisability of changing the date of the state meetings from the spring to the autumn.

As it is now arranged, the dates of our state society and the national society are often so close together that it is impossible for many members to attend both meetings. It is believed by some that the members would feel more like attending the state meeting if held in October or early November than during the days when the "spring fever" is apt to take hold of us. Moreover, in the spring many of our most talented men are engaged in writing papers for one or another of the national societies and are persuaded, with difficulty, to prepare a paper for our state meeting.

In his report to the House of Delegates at the last meeting of the American Medical Association Dr. McCormack says:

"For the reason set forth, and for others still more important, it is again urged that all the state associations which have not yet done so, seriously consider the advantages to be gained by holding their meetings in the fall, as nearly as may be, midway between the meetings of this association. A number of state associations have already acted favorably on this suggestion and the advantages of the arrangement are evident. With the state and national meetings coming within a few weeks of each other, as is often unavoidable when both are held in the spring, many of our best members are forced to miss both of them. In addition, and probably more important, half of the delegates from such states begin active service at once without the time for such inquiry and study as would make them most useful to their constituents and to the cause of organization."

The decision of the question so far as Michigan is concerned, it would seem, should rest on the question as to whether or not a majority of the members are

less engaged with practice in the fall and so more free to attend an autumn meeting. An expression of opinion from different parts of the state is requested for our correspondence department.



**Copies of the "Great American Fraud" pamphlet**, a reprint of the famous articles in *Collier's Weekly*, which were compiled by Mr. Adams, after a vast amount of personal investigation, should be in the hands of every physician. It is gratifying to learn that the Jackson County Society has purchased a sufficient number to supply not only every member, but every physician in the county as well.

The edition, now being supplied at a nominal cost (\$2.00 for 50 copies) by the American Medical Association, includes the two series, the first on "The Nostrum Evil" and the second on "Quacks and Quackery." They form a relentless exposé of the ridiculous claims of the patent medicine man and the miracle workers, and can with propriety be put into the hands of his patients by the physician. The secretary of each county should supply the members on his list, with one or more copies.



**A new County Society has been organized** in Antrim County. This county was formerly affiliated with Charlevoix under the name Charlevoix-Antrim. Interest seems to have lagged in Charlevoix, for what reason we do not know, and the physicians of Antrim have therefore formed a separate society.

The charter members, who are heartily welcomed into the state society, are Drs. J. C. Gauntlett and Charles Long, of Elk Rapids; E. R. Close and William Evans, of Bellaire; R. E. L. Gibson and F. P. Ramsey, of Central Lake; T. S. Hoag, of Alden; H. A. Stewart, of Alba; L. L. Willoughby, of Mancelona.

Dr. Gauntlett has been elected president and Dr. Willoughby secretary.

## The War on Tuberculosis

In this department, which will appear from time to time, brief and suggestive notes will be made touching on the economic side of the combat against tuberculosis.

During August there were reported 2,735 deaths from all causes in the state. Of these 178 were from tuberculosis, or 6 per cent of the total number.

The International Congress on Tuberculosis will meet in Washington, September 21st to October 12th, 1908. In an open letter, Dr. John S. Fulton, the secretary-general, says: "The American Committee is sensible of a great responsibility in the organization of the International Congress, and asks the aid of all those who are interested in the anti-tuberculosis movement, in order that the coming Congress may merit the honor conferred on our country by the choice of Washington as a meeting place.

The State Committee for Michigan consists of Dr. George Dock, Ann Arbor; Dr. C. G. Jennings, Detroit; Dr. Collins H. Johnston, Grand Rapids; Dr. F. W. Shumway, Lansing; Dr. V. C. Vaughan, Ann Arbor and Dr. A. S. Warthin, Ann Arbor.

According to Dr. Tucker Wisc, of Montreal, tuberculous affections of birds are transmissible to the human subject, and he fortifies his opinion by brief accounts of 33 cases in which infection appeared from pet birds. Caged birds, says Wisc, such as canaries, pigeons and parrots, lead a life calculated to render them an easy prey to tuberculosis, and the way in which they are managed in the household conduces powerfully to their spreading the infection to the members of the family. The bird's excrement is disseminated by the fluttering of its wings, and particles of it are carried by flies to articles of food. How widespread is the danger of the conveyance of disease from birds to man may be judged of by the fact that in England 400,000 canary birds are sold annually.—*New York Med. Jour.*

The Iowa Society for the Study and Prevention of Tuberculosis has discovered that tuberculosis is far more prevalent in the dairy district than in Southern Iowa. This is held to support the theory that contact with dairy cows is a fecund source of tuberculosis in man. The society will report findings to the legislature next session and

solicit an appropriation for stamping out tuberculosis in the dairy herds of the state.—*Med. Record.*

Dr. John Lowman, of Cleveland, says in a recent magazine article very pertinently: "The transition of a child from a free, unrestrained life in the open air to the atmosphere of the usual school-room has a bad general influence on health, it is stated, and this greatly adds to the danger of infection from tuberculosis. More fresh air in the school-rooms, more time spent in the open air, increased teaching in hygiene and elementary instruction in tuberculosis as a part of the curriculum, are among the plans discussed for preventing the further spread of tuberculosis in the schools."

Dr. Pollock, of New Orleans, was sentenced on September 12 to pay a fine of twenty-five dollars or thirty days' imprisonment for failing to report a case of tuberculosis. The case has attracted considerable attention, especially in medical circles, as Dr. Pollock is the first physician in the State of Louisiana to be punished for violation of this law. Many attempts have been made by the State and City Boards of Health to induce practitioners to report tuberculosis promptly, but these efforts did not meet with anything like general success, doctors being, as a rule, inclined to yield to the objections of their patients to publicity.—*Cincinnati Lancet-Clinic.*

The attention of the whole world has been called to the State of Pennsylvania because of her appropriation of \$1,000,000 to the Department of Health for the relief of the poor who are suffering from tuberculosis. This \$1,000,000 appropriation includes the care of those incipient cases whose domestic responsibilities will not permit them to go to a sanatorium, the establishing of sanatoria for early cases, and also infirmaries for advanced cases of tuberculosis.—*Public Health.*

The Michigan State Board of Health will prepare an exhibit for the International Congress on Tuberculosis to be held at Washington, D. C., September-October, 1908; and the mayors of cities, presidents of villages, and other local health officials are cordially invited to take part in this exhibit. Special or local statistics which they may have to further the study of tuberculosis will be of interest to the State Department.

That the physician is beginning to be recognized as an instructor of the people at large,



teaching how diseases are caused and communicated, and what are the means of prevention, is becoming more apparent every day. President Eliot, of Harvard, believes that this "new function" of the physician, which has been brought into strong light by recent events, is sure to be amplified and made more effective in the near future. In his address at the dedication of his new medical school (printed in "Science," Oct. 12, 1906), he said:

"The recent campaign against tuberculosis is a good illustration of this new function of the profession. To discharge it well requires in medical men the power of interesting exposition, with telling illustration and moving exhortation. Obviously the function calls for disinterestedness and public spirit on the part of the profession; but to this call it is certain that the profession will respond. It also calls for some new adjustments and new functions in medical schools, which should hereafter be careful to provide means of popular exposition concerning water supplies, foods, drinks, drugs, the parasitic causes or consequences of disease in men, plants, and animals, and the modes of communication of all communicable diseases. Medical museums should be arranged in part for the instruction of the public, and, with some suitable reservations, should be steadily open to the public. The medical schools should also habitually provide popular lectures on medical subjects, and these lectures should be given without charge on days and at hours when working people can attend. In other words, selected physicians should become public teachers, as well as private practitioners. America has much to learn from Europe in regard to this public spirited service on the part of the profession."—*Public Health*.

The Health Department in New York City distributes cards upon which are printed rules for tuberculous patients. Our members should influence their local health officers to impress upon the public the contagiousness of tuberculosis, by circulating a similar set of rules. The principal points on the New York card are:

Don't live, study, or sleep in rooms where there is no fresh air.

Don't live in dusty air. Get rid of dust by moping with damp cloths. Don't sweep with a dry broom.

Keep one window partly open in your bedroom

at night and air the room two or three times a day.

Don't eat with soiled hands. Wash them first.

Don't put hands or pencils in the mouth or any candy or chewing gum other persons have used.

Don't keep soiled handkerchiefs in your pocket.

Take a warm bath at least once a week.

To those who have contracted consumption:

Don't waste your money on patent medicines. If you go to a doctor in time you can be cured.

Don't drink whiskey or any other form of liquor.

Don't sleep in the same bed with anyone else, and, if possible, not in the same room.

Good food, fresh air and rest are the best cures. Keep in the sunlight as much as possible.

Keep your windows open winter and summer, day and night.

The careful and clean consumptive is not dangerous to those with whom he lives and works.

The following rules are enjoined on even healthy persons, and they are asked to observe them:

Don't spit on sidewalks, floors or hallways. Spit into the gutters or a spittoon half filled with water.

Don't cough or sneeze without holding a handkerchief before the face.

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## Book Notices

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**Gynecology and Abdominal Surgery.** In two large octavos. Edited by Howard A. Kelly, M.D., Professor of Gynecologic Surgery at Johns Hopkins University; and Charles F. Noble, M. D., Clinical Professor of Gynecology at the Woman's Medical College, Philadelphia. Large octavo volume of 851 pages, with 405 original illustrations by Mr. Hermann Becker and Mr. Max Broedel. Philadelphia and London: W. B. Saunders Company, 1907. Per volume: Cloth, \$8.00 net.

The authors of this first volume are as follows: Brooke M. Anspach, M. D., J. M. Baldy, M. D., Henry T. Byford, M. D., John G. Clark, M. D., George M. Edebohls, A. M., M. D., LL. D., William W. Ford, A. B., M. D., D. P. H., Anna M. Fullerton, M. D., Fernand Henrotin, M. D., Guy L. Hunner, B. S., M. D., Elizabeth Hurdon, M. D., Howard A. Kelly, A. B., M. D., LL. D., F. R. C. S., Beverly MacMonagle, M. D., Charles P. Noble, M. D., Alexander J. C. Skene, M. D., J.

Clarence Webster, A. B., M. D., F. R. C. P. E., F. R. S. E., X. C. Werder, M. D.

The subjects considered are arranged under 25 chapter-headings, and do not extend beyond the pale of strict gynecology, relating to the reproductive organs and bladder. The first quarter of the book is concerned with general gynecologic technique, bacteriology, and pathology. No surgical treatise and seldom a monograph has given so thorough and accurate a description of the pathology of the genitals; it is much desired by many who would not otherwise gain the knowledge. The illustrations of gross and microscopical specimens are noteworthy for their profusion and technical excellence; the drawings often seem like photographic reproductions. It may be remarked that Dr. Hurdon adopts pathologic conceptions not always adhered to by other authors in the Clinical chapters; for instance, she limits the term "endometritis" to lesions of infectious origin, and the so-called "glandular endometritis" she classifies as "gland hypertrophy." But Noble and Anspach, in the succeeding chapter, preserve the more popular terminology.

The subject of medical gynecology is set forth with such detail as to make it of great value to the general practitioner; there is a judicious medium observed between exaggerated operative work and a neglect of the same. All through the book this good judgment is apparent in the statement of exact truths so far as known and the presentation of unbiased opinions. This is assisted by the quotation of many statistics, especially in the matter of surgical mortality, immediate and ultimate, and of cures, relative and absolute.

The remainder of the book is taken up with the discussion of gynecologic surgery, including plastic work, combined operations, pelvic ablations by the abdominal and vaginal route, with chapters on preparation and after-treatment, bladder operations, treatment of uterine cancer, etc. As stated in the preface, all elementary details are omitted, and it is a pleasure to read a work where the authors presume some intelligence possessed by the reader.

There are many subjects dwelt upon which are seldom found outside of special articles; for instance, the hygiene of adolescence, the conduct of operations in private houses, the care of the patient after she has passed from the hands of the surgeon, operations before puberty, the examination and treatment of virgins, the complications and degenerations of fibroids of the uterus, and others. Every author also is at pains to elaborate

the matter of prognosis, which is usually a neglected division of surgical works. Still another strong point is the description of how actually to do things; there is no dismissal of methods with verbose generalities, but a detailed, yet succinct, statement of every step in a given procedure. Careful illustrations strengthen the text in such places.

The chapter on vesical fistula is an especially lucid and readable contribution from Dr. Kelly himself; he also has written the chapters on Technic, Vaginal Drainage for Abscesses, Conservative Operations on Ovaries and Tubes, and Operations before Puberty. Dr. Noble's name is seen at the head of no less than eight chapters.

The work of this first volume is almost ideal. It appeals to every practitioner of medicine, but its greatest appeal must be to the general physician, who will find how to diagnose, what to do, when to do it, and how to do it. There is everywhere evident the skilled hands of experienced editors and publishers. One will have interesting reading wherever he opens, and the most learned may still learn something more. We have seldom seen a work that can be so unreservedly recommended.

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**Diseases of Infancy and Childhood.** Their Dietetic, Hygienic and Medical Treatment. A textbook destined for practitioners and students of medicine. By Louis Fischer, M. D., Visiting Physician to the Willard Parker and Riverside Hospitals, New York City. Octavo, 979 pages. 303 illustrations and 27 full-page halftones and color plates. Philadelphia: F. A. Davis Co., 1907.

Fischer has added another work to the already numerous list of good books treating of the diseases of infancy and childhood.

The subject is divided into twelve parts for discussion: 1. The Newborn Infant. 2. Abnormalities and Diseases of the Newly-born. 3. Feeding in Health and Disease. 4. Disorders Associated with Improper Nutrition, and Diseases of the Mouth, Oesophagus, Stomach, Intestines, and Rectum. 5. Diseases of the Heart, Liver, Spleen, Pancreas, Peritoneum and Genito-Urinary Tract. Diseases of the Respiratory System. 7. The Infectious Diseases. 8. Diseases of the Blood, Lymph Glands, or Nodes, Ductless Glands. 9. Diseases of the Nervous System. 10. Diseases of the Ear, Eye, Skin, and Abnormal Growths. 11. Diseases of the Spine and Joints. 12. Miscellaneous.

Throughout the work there are many quotations of others' views. However, the text is really

an expression of the worker's own beliefs, founded upon clinical observation in Europe and as attending physician to the Riverside and Willard Parker Hospitals.

The chapters on physiology and diseases of the newborn are brief but usually to the point. A frequent condition like atelectasis might have received more notice.

To the important section on "Feeding in Health and Disease," 155 pages have been devoted. This includes management during breast feeding and wet nursing; a discussion of the chemical properties of cow's milk and instructions for obtaining and keeping cow's milk clean. Fischer demonstrates his method of artificial feeding by giving the clinical records of his own cases. He prefers whole milk to top milk mixtures, uses cane sugar, and, usually, some cereal. There is more use made of proprietary foods than most pediatricians admit and more than the usual space is given to substitutes for milk, most of which are of German origin.

Of disease in general most attention is given to diagnosis and treatment. The bacteriology of the intestinal tract is quite fully discussed.

Cholera Infantum and Summer Diarrhoea are grouped under the head of Acute and Subacute Milk Infections, respectively, showing how much importance Fischer gives to dirty milk as the source of infection. The author is skeptical of any distinct condition as cyclic vomiting. He classifies colic abdominal pains due to impacted feces as pseudo-appendicitis.

The section on Infectious Diseases is quite suggestive.

Throughout there are many practical therapeutic aids. The illustrations are numerous and instructive.

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**A Text-Book of Physiological Chemistry.** By Charles E. Simon, Professor of Clinical Pathology at the Baltimore Medical College. Octavo, 490 pages. Philadelphia: Lea Brothers & Co., 1907.

The third edition of Simon's well known text on physiological chemistry is in many ways superior to the previous edition. The rapid strides that are taking us deeper and deeper into the realm of the chemistry of body cells, ferments and metabolic products, require frequent additions to a book dealing with such a living, progressing subject.

The first chapter is a general consideration of

the synthesis of fats, carbohydrates and albumins in the vegetable kingdom; of the significance of catalysis and of enzyme action.

Chapters II., III. and IV. deal with a careful description of albumins, carbohydrates and fats respectively. On page 46 an excellent table gives the comparative quantities of aminoacids in various albumins. The scheme at the end of the second chapter is especially valuable, showing in full our present knowledge of derived albumins resulting from proteolytic digestion.

More attention might have been paid to the topic of ferments, which is an ever-growing and important subject. None of the recent English work is referred to.

The following five chapters are in most respects similar to the previous edition treating of the digestive fluids, their action, products and final disposition of these products, either through resorption or elimination. Then follows a long, carefully arranged, chapter on the urine, containing the chemistry of and tests for most of the abnormal substances excreted by the kidneys. This is especially useful to those desiring special methods of investigation in this particular line.

Chapters XIV. and XV. deal with the blood and the lymph. The latter is materially changed and exceptionally good, considering that much of it is recent work.

The remainder of the book contains the chemistry of especial tissues and organs. More space is given to the chemistry of the products of glands having internal secretion than heretofore.

The appendix, composed of laboratory exercises, is useful, and serves as a good guide for the study of the book itself.

Inasmuch as the text is designed for those who are endeavoring to keep "abreast with the times" as well as students, a bibliography with each chapter would be a desirable addition and not add much to the size of the volume.

The book is the most useful of its kind for those interested in the subject of physiological chemistry and should have a large sale.

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**The Practice of Obstetrics.** By American Authors. Edited by Charles Jewett, M. D., Professor of Obstetrics in the Long Island Hospital, Brooklyn, N. Y. Octavo; 786 pages, 445 engravings in black and colors and 36 full-page colored plates. Cloth, \$5.00 net. Lea Brothers & Co. New York, 1907.

Jewett's Practice of Obstetrics has been a deservedly popular book and appears now in the



third edition. The collaborators, seventeen in number, represent some of the best known teachers of obstetrics. They have prepared concise, yet comprehensive, chapters on their assignments and there is evidence of careful editorial work on the part of Dr. Jewett. The illustrations are numerous, but are for the most part copied from Testut, Savage, Edgar, Simpson and Bumm. Whenever necessary for the sake of clearness, they are in colors.

Among the stronger chapters are those on embryology, the diagnosis of pregnancy, the mechanics of labor, and puerperal infection.

This new edition has been improved and is to be recommended to those who wish a reference book of moderate size.

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**A Manual of Diseases of the Nose, Throat and Ear.** By E. Baldwin Gleason, M. D., Clinical Professor of Otology at the Medico-Chirurgical College, Philadelphia. 12mo. of 556 pages, illustrated. Philadelphia: W. B. Saunders Company, 1907. Flexible leather, \$2.50 net.

This manual was written to supply students, and general practitioners with the facts of rhinology and otology essential for them to know—and as such, fulfills very well its mission. That it fulfills the author's endeavor to present anatomy, physiology, and pathology sufficiently complete for practitioners taking a post-graduate course, is decidedly open to question. The anatomy of the nose and its sinuses, which is absolutely essential as a foundation to rhinology, is stereotyped into a few incomplete paragraphs, while the anatomy of the tonsils escapes mention entirely. It is not surprising therefore to see advocated partial removal of the latter by means of a tonsillatome, snare or galvanocautery. One looks in vain for mention of direct tracheo-bronchoscopy. Otosclerosis barely escapes omission, being cited only as a cause of failure in the operation, to produce mobilization of the stapes. Like most books of its kind, it fills a certain place as a compend, but to one seeking more than superficial knowledge in these special branches of medicine, it offers little of value.

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**Progressive Medicine, Vol. III, September, 1907.** A quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D. 290 pages, with 15 engravings. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00, carriage paid to any address. Lea Brothers & Co., Philadelphia.

The third volume for the year of Progressive Medicine contains four main articles, each being a review of the recent literature in its department. The first is by Ewart and discusses the diseases of the heart, lungs and blood vessels; the second, by Gottheil, covers dermatology and syphilis; the third is a review of obstetrics, by Davis; the fourth, on diseases of the nervous system, by Spiller.

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## County Society News

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### IONIA.

The Ionia County Medical Society held its annual meeting at the Town Club Rooms, Ionia, October 17. Sessions were held in the afternoon and evening, and the number present was the largest yet recorded. The program included a visit to the Michigan Asylum, as guests of Dr. O. R. Long. Dr. W. R. Grant, of Lyons, read a paper at the evening session and there followed a general discussion on the topic, "A New Fee-bill and Better Pay for Our Services."

The following were elected officers for the coming year: President, C. B. Gauss, Palo; first vice-president, C. C. Dellenbaugh, Portland; second vice-president, G. A. Stanton, Belding; third vice-president, B. O. Erricsson, Ionia; fourth vice-president, J. D. Bradfield, Orange, secretary-treasurer, C. S. Cope, Ionia; delegate to the Manistee meeting, C. S. Cope, Ionia; alternate, J. W. Little, Belding.

C. S. COPE, Sec'y.

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### JACKSON.

The Jackson County Society began the post-graduate work for the season on October 29. The meetings for this course will be held Thursday evening of each week, beginning at 7:15 and ending promptly at 8:45. At each meeting a chairman will have charge, and he will be responsible for the program of that evening. The discussions are limited to five minutes and a member may reserve a discussion period in advance by sending notice to the chairman.

The program committee, consisting of Drs. E. C. Taylor, C. H. Lewis, and C. D. Munro, have

prepared the following outline:

October 29, 1907. Chairman, Dr. W. H. Gibson. Paper: "Recent Advances in General Surgery."—Dr. G. E. Seybold.

November 5, 1907. Chairman, Dr. C. G. Parnall. Paper: "Recent Advances in Gynecology and Obstetrics."—Dr. Grace Hendricks.

November 12, 1907. Chairman, Dr. C. H. Lewis. Paper: "Recent Advances in Eye, Ear, Nose, and Throat Work."—Dr. T. S. Langford.

November 19, 1907. Chairman, Dr. Martha Strong. Paper: "Recent Advances in Therapeutics."—Dr. L. J. Harris.

November 26, 1907. Chairman, Dr. P. I. Edwards. Paper: "Recent Advances in Clinical Diagnosis."—Dr. John Smith.

December 3, 1907. Chairman, Dr. Grace Hendricks. Paper: "Recent Advances in Bacteriology, Pathology, Etc."—Dr. W. R. Snow.

December 10, 1907. Chairman, Dr. A. R. Williams. Paper: "Important Fractures—Diagnosis and Treatment."—Dr. J. C. Kugler.

December 17, 1907. Chairman, Dr. C. D. Munro. Paper: "Important Dislocations—Diagnosis and Treatment."—Dr. E. C. Taylor.

December 31, 1907. Chairman, Dr. J. F. Wesch. Paper: "Tubercular and Syphilitic Arthritis—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. C. H. Lewis.

January 7, 1908. Chairman, Dr. D. E. Robinson. Paper: "Gonorrheal and Rheumatic Arthritis—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. A. R. Williams.

January 14, 1908. Chairman, Dr. M. P. Guy. Paper: "Osteomyelitis, Osteomalacia and Bony Tumors—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. C. D. Munro.

January 21, 1908. Chairman, Dr. E. C. Taylor. Paper: "Tubal Pregnancy—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. D. E. Robinson.

January 28, 1908. Chairman, Dr. Peter Hyndman. Paper: "Inflammation of the Uterine Appendages—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. Martha Strong.

February 4, 1908. Chairman, Dr. N. H. Williams. Paper: "Uterine Inflammation and Tumors—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. C. G. Parnall.

February 11, 1908. Chairman, Dr. J. H. Meyers. Paper: "Cystocele and Rectocele—Etiology and Treatment."—Dr. H. G. Brown.

February 18, 1908. Chairman, Dr. A. E. Bulson. Paper: "Recent Important Medico-Legal Decisions."—Judge J. A. Parkinson.

February 25, 1908. Chairman, Dr. John Smith. Paper: "Cystitis in Male and Female—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. E. S. Peterson.

March 3, 1908. Chairman, Dr. H. D. Hodge. Paper: "Gonorrhea in Male and Female—Pathology, Diagnosis and Treatment."—Dr. F. W. Rogers.

March 10, 1908. Chairman, Dr. T. S. Langford. Paper: "Syphilis—Pathology, Diagnosis, Medical and Surgical Treatment."—Dr. G. R. Pray.

March 17, 1908. Chairman, Dr. G. A. Seybold. Paper: "Tuberculosis—Pathology, Diagnosis and Medical Treatment."—Dr. N. H. Williams.

March 24, 1908. Chairman, Dr. W. J. Marks. Paper: "Inflammatory Rheumatism—Pathology, Diagnosis and Treatment."—Dr. M. P. Guy.

March 31, 1908. Chairman, Dr. J. C. Kugler. Paper: "Endocarditis and Valvular Heart Lesions—Pathology, Diagnosis and Treatment."—Dr. W. H. Gibson.

April 7, 1908. Chairman, Dr. A. J. Roberts. Paper: "Chorea—Pathology, Diagnosis and Treatment."—Dr. P. I. Edwards.

April 14, 1908. Chairman, Dr. W. R. Snow. Paper: "Neuritis—Pathology, Diagnosis and Treatment."—Dr. Olive Thorne.

April 21, 1908. Chairman, Dr. L. J. Harris. Paper: "Poliomyelitis—Pathology, Diagnosis and Treatment."—Dr. W. J. Marks.

April 28, 1908. Chairman, Dr. G. R. Pray. Paper: "The Eruptive Fevers—Pathology, Differential Diagnosis, Complications and Treatment."—Dr. H. D. Hodge.

May 5, 1908. Chairman, Dr. H. D. Brown. Paper: "Chronic Nephritis—Pathology, Diagnosis and Treatment."—Dr. J. H. Meyers.

May 19, 1908. Chairman, Dr. Olive Thorne. Paper: "Asthma and Hay Fever—Pathology, Diagnosis and Treatment."—Dr. A. J. Roberts.

May 26, 1908. Chairman, Dr. E. S. Peterson. Paper: "Acute and Chronic Naso-pharyngitis—Pathology, Diagnosis and Treatment."—Dr. J. F. Wesch.

June 2, 1908. Chairman, Dr. M. McLaughlin. Paper: "Medical Examination in the Schools."—Dr. A. E. Bulson.

T. S. LANGFORD, Sec'y.

## KENT.

The Kent County Medical Society resumed its regular meetings on September 11, when Dr. J. S. Edwards read a "Review of Some of Osler's Works." On September 25, Dr. F. J. Groner read a paper on the "Surgery of Amputations." Both meetings were well attended and in addition to a free discussion of the above papers, a number of interesting cases were reported by the various members. Case reports have been made one of the principal features of every meeting. These reports are always very interesting and bring forth free discussion and opinions.

The Committee on Public Health and Legislation reported upon the plan they were pursuing in the prosecution of illegal practitioners. We hope, in the near future, to be able to give a fuller report of their work and the results obtained.

At our last meeting our President, Dr. S. L. Rozema, appointed a committee of three to be known as the "Committee on Papers and Publications," whose duty it shall be to preserve and prepare for publication such papers as are read before the society.

Our next meeting will be a Symposium on Diabetes.

Thus, Kent County has resumed its regular meetings with renewed enthusiasm and vigor, and we look forward to a winter of profitable and interesting meetings.

F. C. WARNSHUIS, Acting Sec'y.

## LAPEER.

The annual meeting of the Lapeer County Medical Society was held in the parlor of the Graham House, Lapeer, October 9, 1907. The meeting was well attended.

Dr. George Dock, of Ann Arbor, read a most interesting paper on some "Functional Diseases of the Heart." A paper was also read by M. B. McCausland, of Inlay City.

The following officers were elected: Dr. W. J. Kay, of Lapeer, president; Dr. O. J. Thomas, of North Branch, vice-president; Dr. M. B. McCausland, of Inlay City, secretary; Dr. A. O. Bolton, of Attica, treasurer.

The next meeting of the society will be held at Lapeer. M. M. McCausland, Sec'y.

## LENAWEE.

The Lenawee County Society had an excellent meeting at Blissfield on October 8. Four new members were added to the roll, making 51 in all, the largest number ever enrolled in the society.

Papers were read by members of the society and by Drs. Jacobsen, of Toledo, and Polozker, of Detroit.

The annual meeting will be held December 10, and a banquet is expected at that time.

J. C. JOHNSON, Sec'y.

## OAKLAND.

The Oakland County Medical Society held their sixth annual meeting Tuesday, September 10, at 2 o'clock in the supervisor's rooms in the Court house, at Pontiac.

Dr. Max Ballin, of Detroit, read a paper on the "Treatment of Goiters" and illustrated the important points by operative and post-mortem specimens. Dr. Ballin's paper treated the subject exhaustively and provoked a generous discussion.

The annual report of the Secretary-Treasurer showed the society to be in good financial condition and recommended special efforts to increase the membership the coming year.

The following officers were elected for the ensuing year: Dr. G. W. MacKinnon, of Oxford, president; Dr. Thos. E. McDonald, of Holly, vice-president; Dr. C. D. Morris, of Pontiac, secretary-treasurer. The board of directors will consist of the president, secretary and Drs. M. W. Gray, E. A. Christian and N. B. Colvin, all of Pontiac.

C. D. MORRIS, Sec'y.

## STATE BOARD OF REGISTRATION.

The State Board of Registration in Medicine met at Lansing on October 8, 9 and 10, and examined ten candidates for license.

The questions were as follows:

## BACTERIOLOGY.

Albertus Nyland, M. D., Grand Rapids.

1. Define the following: (a) bacteria; (b) pathogenic; (c) saprophytic; (d) leucocytes; (e) phagocytes; (f) opsonins. Describe the theory of phagocytosis.



2. What is a culture? How is it made? State its object. Why do you stain bacteria?

3. Describe the tubercular test and the opsonic index test for the diagnosis of tubercular infection.

4. What are the essential factors in infective processes, and name the bacteria most commonly associated with ordinary and suppurative processes.

5. Describe in detail the examination of sputum for tubercle bacilli. How would you make a bacteriological diagnosis of diphtheria?

#### PATHOLOGY.

Beverley D. Harison, M. D., Detroit.

1. Round-celled Sarcoma—give a brief description of.

2. Definition and etiology of Hypertrophy.

3. Name the Albuminoid Degenerations.

4. What is Acute Lymphadenitis? Give its pathologic anatomy.

5. Describe a Retention Cyst.

6. Etiology and results following Oophoritis.

7. Distinguish between fatty degeneration and fatty infiltration of kidney.

8. The most favorable termination of a thrombus is organization. Describe the process.

9. Describe briefly the morbid changes observed in a case of Typhoid Fever, including two very common complications, upon making a complete post-mortem examination.

10. Necrosis—distinguish between the coagulation and liquefaction forms, with example of each.

#### CHEMISTRY AND TOXICOLOGY.

J. L. Campbell, M. D., Birmingham.

1. What important compound is formed by the combination of hydrogen and nitrogen? Give formula.

2. What are the Halogens? Describe them.

3. How is the temperature and the pressure of the atmosphere measured?

4. What is the object of analyzing urine?

5. What is Analysis? Synthesis?

6. What are Sulphates? Give three examples.

7. What is the superscription; inscription; subscription; and signa of a prescription?

8. What are the prominent symptoms of Belladonna poisoning? Of Opium poisoning?

9. What are the prominent symptoms of Chloral poisoning?

10. What is Toxicology? Give different classes of poisoning and an example of each class.

#### ANATOMY.

J. H. Ball, M. D., Bay City.

1. Name structures that would be cut through in an amputation of the forearm at the upper third.

2. Give the blood and nerve supply of the uterus and appendages.

3. Give the branches of the abdominal aorta.

4. Give the origin and distribution of sciatic nerve.

5. Give the function and general distribution of cranial nerves.

6. Bound the axilla and give contents.

7. Give the position of the contents of axilla.

8. Name the regions of abdomen and give contents.

9. Describe the popliteal space and give contents.

10. Name the muscles attached to the humerus.

#### HISTOLOGY.

Joseph H. Cowell, M. D., Saginaw.

1. Describe the formation of the mesoderm and name the tissues which develop from it.

2. Name and describe the different forms of bone marrow.

3. Name the varieties, or groups, of leucocytes, according to their morphologic differences, or peculiarities in behavior towards coloring matter.

4. Describe the blood supply of the spleen.

5. Describe one method of preparing for mounting sections of tissues.

#### PHYSIOLOGY.

William Bell, Belding, Michigan.

1. What are the manifestations of cell life?

2. What is a neuron? What conditions of the nervous system would tend to favor an exaggerated "knee jerk" and the reverse?

3. What is the normal acid of the urine, its

ultimate source, and the principal factors relating to its formation in excess?

4. What is glycogen? Where formed? and what purpose does it subserve in the economy?

5. What is meant by the term inhibition? Give example, and explain mechanism.

6. What do you understand by the term "Metabolism"?

7. What is meant by the term "Refracting Apparatus"? and what are the more common wrongs relating thereto?

8. Describe the three stages of digestion.

9. How many groups of food are necessary for the maintenance of man, and what substances make up these groups?

10. Discuss the function of the thyroid gland, and locate and describe the parotid gland, giving its function.

#### PRACTICE.

T. A. Felch, M. D., Ishpeming, Mich.

1. Clinical history of arterio-sclerosis; prognosis and treatment.

2. Differentiate between acute pleurisy and intercostal neuralgia.

3. Mention the various causes which may lead to convulsions in children.

4. What physical signs warrent a diagnosis of mitral stenosis?

5. Give your treatment of acute nephritis.

6. Give the differential diagnosis of scarlet fever, measles and diphtheria.

7. Give the differential diagnosis of renal and hepatic colic.

8. Describe epilepsy and its varieties, and give causes.

9. Differentiate acute pericarditis from acute endocarditis.

10. Describe the eruption of variola in its different stages.

#### SURGERY.

A. W. Alvord, M. D., Battle Creek.

1. Given an oblique fracture of outer third of clavicle. What is the best method of repair?

2. Describe the operation for the radical cure of femoral hernia.

3. What is the best anesthetic for ordinary use, and why? Give method of application.

4. How would you treat acute tubercular peritonitis?

5. What is Normal Saline Solution? When and where should it be used?

6. For what lesions, and when, is it necessary to amputate a limb in case of a compound, comminuted fracture?

7. Describe rectal fistula and the best method of cure.

8. What is Paracentesis Thoracis? When is it necessary? Describe the technique.

9. How would you diagnose a hip dislocation, and how would you reduce it?

10. What is Appendicostomy, and to what cases is it applicable?

#### MATERIA MEDICA AND THERAPEUTICS.

Flemming Carrow, M. D., Detroit.

1. How do opium and its preparations, when given internally, affect the Pupil and the Heart?

2. What is the composition, effects and dosage of Pulv. Ipecac Comp.?

3. What effect does pilocarpine have upon the eye and the skin, and what are its chief therapeutic uses?

4. Describe fully the management of a case of Anasarca of Renal origin.

5. Describe in detail the action of the "Digitalis series" on (a) the central nervous system; (b) the heart, and mention the more important members of this group, with the dose of each?

#### GYNECOLOGY.

Flemming Carrow, M. D., Detroit.

1. Leucorrhea is a symptom, not a disease. What are its sources?

2. Describe the menstrual history of a healthy woman of 30 as to age of onset,—periodicity,—duration of flow,—sensation at time of flow,—character of the flow,—and probable age of cessation.

3. Differentiate between a pregnancy at the 5th month, and Tumors of Pelvic origin.

4. Extra uterine pregnancy,—the symptoms,—differential diagnosis,—treatment,—the result of unoperated cases.

5. Mrs. W., aged 46, the mother of three

children,—oldest of whom is 20, youngest 14,—ceased menstruating one year ago. She comes to you complaining that three weeks ago she noticed a very slight bloody vaginal discharge. This lasted ten days, then disappeared, to appear again four days ago. There has been no pain and she has felt perfectly well,—what condition would you expect to find on examination? Suppose the bi-manual examination is negative, what would you recommend?

### OBSTETRICS.

Joseph H. Cowell, M. D., Saginaw.

1. What is the place of insertion of the placenta in the following presentations: L. O. A., R. O. A., L. O. P., R. O. P.?

2. Given an incarcerated, retroflexed, pregnant uterus, what are its dangers? How reduced? Give after treatment.

3. What is Wälcher's position? When is it found useful, and why?

4. How may fibroids complicate pregnancy? Mention the varieties and give treatment.

5. Give the technique of saline infusion.

### EYE, EAR, NOSE AND THROAT.

Henry C. Maynard, M. D., Hartford.

1. Describe the eye ball as a whole—its diameters, poles, axes, planes and tunics.

2. Persistent headache over the eyebrows may be due to what cause?

3. Give a detailed account of the parts and boundaries of the tympanic cavity of the ear.

4. Membranous-anginae (non-diphtheric). Describe the different forms, and give treatment.

5. How would you treat a case of diphtheria?

### MEDICAL JURISPRUDENCE.

Henry C. Maynard, M. D., Hartford.

1. Of what does medical jurisprudence treat?

2. What is the difference between civil and criminal malpractice?

3. Define mania, giving its prognosis and, briefly, its treatment.

4. At what stage of intrauterine life does the foetus become viable?

5. How would you differentiate between narcotic poisoning, drunkenness, uremia and concussion?

### HYGIENE.

Albertus Nyland, M. D., Grand Rapids.

1. Define hygiene. Name the principal infectious and contagious diseases in order of their prevalence. What methods would you use for the restriction of those diseases?

2. Name diseases which may be transmitted through the following agencies: (a) air; (b) water; (c) milk (d) soil; (e) insects.

3. What is food? Name the three groups of food and state the general purpose each subserves in the animal economy. Give example of each.

4. Describe the best method of disposing of liquid refuse where there is no sewage system. Describe best method of disinfecting a room which has been occupied by a case of contagious disease.

5. What conditions are essential to a good water supply? Mention some of the constituents that render water unfit for drinking. How can impure water be purified? What test would you use to determine the purity of water?

### MATERIA MEDICA AND THERAPEUTICS (HOMEOPATHIC).

J. H. Ball, M. D., Bay City.

1. Bryonia. Give general physiological action. Give characteristic symptoms.

2. Hepar Sulphur. Give characteristic symptoms and therapeutic application.

3. Gelsemium. How prepared. Give sphere of action. Give therapeutic application and indications.

4. Belladonna. Give its alkaloid. Give dose and action of same. Give five characteristic indications for Belladonna.

5. Mercury. Give preparations of mercury used in homeopathic materia medica. Give characteristic indications for two of the preparations of mercury.

### PRACTICE OF MEDICINE (HOMEOPATHIC).

Joseph H. Cowell, M. D., Saginaw.

1. Give the morbid anatomy of lobar pneumonia in all stages.

2. What are the clinical features of dysentery? Give treatment.



3. Give the etiology of acute miliary tuberculosis.

4. Differentiate between follicular and suppurative tonsillitis.

5. What causes "sun stroke?" Give pathologic conditions and treatment.

6. Name the causes of chronic dilatation of the stomach. Give symptoms, diagnosis and treatment.

7. What are the chief causes of diarrhoea in infants? Give the dietetic treatment.

8. Define angina pectoris. What pathologic conditions are present in this disease? Give treatment.

9. What is Bright's Disease?

10. Give the treatment of acute chorea.

To the Editor:

Was the bill introduced at the last session of the State Legislature, providing compensation for registering births, passed?

G. F.

### Correspondence.

At the request of the Washtenaw County Society Representative Newkirk introduced a bill providing that a fee of fifty cents be paid for each birth certificate properly filled out and filed. This bill was passed and was signed by Governor Warner, going into effect June 27th.

The full text of the law follows:

#### AMENDMENT TO THE LAW FOR THE REGISTRATION OF BIRTHS AS APPROVED BY THE GOVERNOR AND IN IMMEDIATE EFFECT JUNE 27, 1907.

An act to amend section six of act number three hundred thirty of the Public Acts of nineteen hundred five, entitled "An act to provide for the immediate registration of births, and the requiring of certificates of births," approved June twenty, nineteen hundred five.

*The People of the State of Michigan enact:*

Section 1. Section six of act number three hundred thirty of the Public Acts of the State of Michigan for the year nineteen hundred five, approved June twenty, nineteen hundred five, is hereby amended to read as follows:

Section 6. Every physician, midwife, or nurse shall be entitled to be paid the sum of fifty cents for each certificate made and filed by such physician, midwife or nurse as provided in section two

of this act, and each local registrar shall be entitled to be paid the sum of twenty-five cents for each birth certificate properly and completely made out and registered with him and by him returned to the Secretary of State, on or before the fourth day of the following month, which sum shall include the making of the copy of the certificate to be filed and preserved in his office. Certificates lacking certain items, including the given or Christian name of the child as to children not named at the date of filing the report, shall not be considered as defective, providing the missing information is obtained and returned to complete the certificate as elsewhere provided in this act: Provided, That the registrar for the city of Detroit and the registrar for the city of Grand Rapids shall receive no compensation for the duties required under this act. In case no births occurred during a calendar month, the local registrar shall be entitled to be paid the sum of twenty-five cents for each report to that effect promptly made in accordance with the requirements of this act. All amounts payable to such registrar under the provisions of this section shall be paid by the treasurer of the county in which the registration district is located upon presentation of a proper warrant, issued by the Secretary of State. And the Secretary of State shall issue warrants in favor of local registrars at the end of their official years, or for the year ending March thirty-first when continuing in office, specifying the number of certificates properly registered and promptly returned, and the number of prompt monthly reports made by each, to the effect that no births occurred, with the amount due at the rate fixed herein. Any physician, midwife or nurse who shall be entitled to any of the fees provided by this act, shall, on or before the first day of April of each year, file a sworn, itemized statement, upon such blanks as the secretary of state shall prescribe, of his or her claim for such fees for the year beginning April one preceding, with the local registrar of the township or city where such certificates were filed; and the local registrar shall compare the statement so filed with the records in his office, and, if said statement is correct, shall endorse thereupon his approval of the same in writing. The Secretary of State, upon receipt of such sworn statement, approved by the local registrar, as aforesaid, shall issue his warrant in favor of such physician, midwife or nurse for the amount of such fees. Upon presentation of said warrant to the treasurer of the county in which the registration district is lo-

cated, the county treasurer shall pay the same, in the same manner and out of the same fund that the fees of the local registrar are paid.

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Budapest, September 9, 1907.

To the Editor:—

Budapest, the capital of Hungary, has over 800,000 inhabitants and is known as one of the beautiful cities of the world, not only on account of its fine location on the Danube, but also on account of its handsome and really magnificent buildings.

The medical study is similar to that in Germany. After a five years' course, an examination for the license is passed, but the permission to practice is given only after a whole practical-year has been spent in the clinics. Last year, one hundred and sixty students were graduated, of whom nine were women. The clinical material is declared to be overabundant, and I heard great regret expressed that Americans do not avail themselves of the opportunities here as they do in Vienna, from which city Budapest can be reached in four hours. It is my opinion that a great deal could be accomplished to the advantage of all concerned if the matter would be taken up properly. Of course, a beginning must be made through some responsible organization, or else, one might come here and look over the field for oneself. I am told that strangers are very welcome. The hospitality of the Hungarians is well known. I am personally acquainted with one American who has worked in a clinic in Budapest and who is quite enthusiastic about the way he was treated and the opportunities given to him. It appears to me that the people are more hustling than in Vienna and more American like. This seems to be the case also in the clinics.

Budapest possesses numerous hospitals. They are supported either by the state, the city, or private parties. There exist some private institutions in which physicians and surgeons treat their patients. The new university clinics are partly finished and partly in the course of reconstruction. It is expected that a fine showing can be made by them two years hence when the International Medical Congress will meet in Budapest. I visited two departments of the big plant. The buildings, wards and operating rooms which have thus far been finished, make a splendid, up-to-date appearance. I have also visited some of the city hospitals. One of them, the Rochus hos-

pital, is centrally located and rather old, but very good work is done there. The St. Stephan's hospital and the St. John's hospital are more attractively situated in park-like grounds, especially the latter. The official in the city hall was kind enough to furnish me with the information that the city has, at present, about 3,934 beds at its disposal. In this number are not included those in the University Hospitals and in the numerous private institutions. Not to speak of the hospitals which belong to physicians and which enjoy a great reputation, I will only mention among the private hospitals, the Red Cross Hospital of 120 beds, which is beautifully located, and one of the children's hospitals, which also makes a good impression. The material in the out-patient department appeared to me to be extremely large.

The surgical work about which I could form an opinion in the limited time at my disposal in Budapest, also in the ear, nose and throat line, appeared to correspond in quality and in quantity to that expected in a medical center of this magnitude and importance. The assistants seemed to be given great opportunities for practical work. It seems that the city has enjoyed a rapid growth, and the energy and enthusiasm appear to be very markedly expressed, also in medical matters.

EMIL AMBERG.

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## News

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Dr. Charles J. Ennis, of Sault Ste. Marie, has returned from travels in Ireland.

Dr. Peter J. Livingston, of Caro, has returned from a foreign tour of several months.

The Canadian Medical Association held a notable session in Montreal, Sept. 11-13. A new constitution and by-laws were adopted, with plans for a new medical journal as the official organ. The re-organization is patterned in some respects after the American Medical Association. The following officers will preside at next year's meeting in Ottawa: President, Dr. Frederick Montizambert, of Ottawa; general secretary, Dr. George Elliott, of Toronto; treasurer, Dr. H. Beaumont Small, of Ottawa.

The eighth annual meeting of the American Roentgen Ray Society was held in Cincinnati, Oct. 2, 3 and 4, under the presidency of Dr. P. M. Hickey, of Detroit.

Dr. Frank A. Millard, of Detroit, has returned from Europe.

Physicians throughout the state are failing to report typhoid cases to local health boards. The resulting evil is calling forth vigorous protest.

Four cases of small pox in an advanced stage were discovered in Saginaw on Sept. 13.

Drs. Collins H. Johnston, of Grand Rapids, and Frank R. Gray, of Clare, have been reappointed on the Board of Control of the State Sanatorium at Howell.

Dr. W. L. Babcock, superintendent of Grace Hospital in Detroit, was elected secretary of the American Hospital Association at its recent meeting in Chicago.

Dr. Joseph Foster, of Lansing, has been appointed medical examiner for the new State Sanatorium at Howell.

Dr. J. Perry Worden, of Kalamazoo, has been appointed to the consular service of the United States, to be stationed at Bristol, England.

The governor has appointed Dr. William J. Kay, of Lapeer, a member of the board of trustees of the Eastern Michigan Asylum at Pontiac, to succeed F. E. Thompson, of Lapeer, resigned.

The Detroit College Alumni Association has elected Dr. W. E. Keane, of Detroit, as president. Dr. Keane was physician during the recent season to the Detroit Baseball Club.

Dr. A. Thuner, of Detroit, who has been seriously ill for many weeks, is now recovered and resuming practice.

Dr. W. H. Enders, of Eaton Rapids, has returned from a course of study in one of the German universities.

The Detroit Academy of Medicine, at its annual meeting on Oct. 8, elected officers as follows: President, Dr. F. B. Tibbals; vice-president, Dr. W. F. Metcalf; secretary-treasurer, Dr. H. D. Jenks.

Dr. Myrtele M. Canavan, of Traverse City, formerly secretary of the Grand Traverse County Medical Society, is reported to have accepted a position in the Danvers, Mass., Hospital for the Insane.

Dr. Sara Chase has been elected secretary of the Grand Traverse County Society to fill the vacancy caused by the resignation of Dr. Canavan.

Drs. J. M. Wilhelm and Frank Holdsworth, of

Traverse City, took post graduate work at Ann Arbor during the summer.

The Sanitarium at Traverse City is now ready for the accommodation of patients. There have been many improvements and the hospital has been enlarged and equipped with an up-to-date operating room.

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## Marriages

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Carl F. Fechheimer, M. D., of Detroit, to Miss Laura Offman, of Cincinnati, Oct. 4.

Charles Sturgeon, of Globe, Arizona, formerly of Calumet, to Miss Alice Houle, of Negaunee.

R. F. Codrington, M. D., of Haslett, to Miss Sara McLeman, of Detroit, Aug. 1.

Herbert Loyd Eastman, M. D., to Miss Edith Julia Fied, both of Detroit, Oct. 9.

Thomas R. Purkey, M. D., to Miss Eva C. Scott, both of Detroit, Sept. 30.

George Mayhew, M. D., of South Boardman, to Miss Grace Chase, of Greilickville, Oct. 2.

James A. Elliott, M. D., to Miss Agnes L. Meachem, both of Battle Creek, Oct. 3.

Ralph D. Engle, M. D., of Petoskey, to Miss Grace Gail Disbrow, of Addison, Oct. 9.

Reginald Smith, M. D., of Carsonville, to Miss Pearl Moore, of Sandusky, recently.

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## Deaths

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Charles Herman Kiehl, M. D., a graduate of the Detroit College of Medicine, 1905, died recently at his home in Albuquerque, N. M., aged 26.

Dwight M. Coonley, M. D., died at his home in Detroit, August 30, aged 63.

Fred McOmber, M. D., of Berrien Springs, died suddenly at his home, Aug. 19.

Madge Agnes Corbin, M. D., of Detroit, died suddenly at her sister's home, Oct. 10.

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It is the duty of the proctologist to demonstrate by his work and writing that most tubercular fistulæ are curable, and that the curing of ordinary fistulæ does not tend to bring about lung or skin affections, as was formerly believed.—*Dr. S. G. Gant.*



## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Sphygmobolometry.**—SAHLI describes a new apparatus for studying the circulation. The estimation of blood pressure measures only the driving power, and from it we can draw no conclusions regarding the amount of work actually performed, knowing nothing of the mass to be moved and the resistance encountered. Therefore, if we wish information concerning the magnitude of the circulation, we must take other measurements. This instrument is designed to measure the strength of the pulse wave. It consists of a Riva-Rocci cuff, connected on one side with an inflating bulb, and on the other with a manometer. There are cocks for cutting off the connection with the bulb, and for letting out air from the cuff. The cuff is applied to the upper arm, and between it and the elbow an Esmarch bandage is wound in such a way as to obliterate the radial pulse, thus converting the part of the brachial artery extending to the lower edge of the cuff into a blind branch of the aorta. Moreover, through the compression of the veins, the capillaries are placed under arterial pressure and take part in the pulsation; so that the pulse energy is transformed almost completely to the manometer. This consists of a mercury column with two arms, in one of which a float transfers the vibrations to a disc. Evidently the pulse energy is most completely recorded at the joint where the fluctuation is greatest, and this point lies somewhere between the minimum and maximum blood pressure. It is measured by inflating the cuff to the point where the pulse wave first appears, and recording the fluctuation at increasing pressures until the pulse wave again disappears. The highest curve is taken, and the work performed by the pulse calculated by a formula which takes into account the mass raised to the height observed. When the strength of the single pulse beat has been thus ascertained, the actual work performed in a given time is readily calculated. Of course the instrument does not measure the entire energy of the heart, but only that which goes to the compressed portion of the arm. The method is said to determine more accurately the effect of heart treatment upon the circulation than any other hydraulic method.—*Deutsch. med. Woch.*, Nos. 16 and 17.

**Treatment of Liver Cirrhosis with Creatin.**—ZYPKIN reports the use of creatin, which he has

previously employed in tabes, disseminated sclerosis, and chronic myelitis, in a case of cirrhosis of the liver.

The patient came to the hospital on account of ascites and edema of the legs. At first she was given the drug by subcutaneous injection; later by the mouth. She took in all 4,800 tablets of creatin. She was discharged at the end of 14 months, having needed only one tapping. The liver was diminished in size, and the circumference of the abdomen had decreased 10 c.m. Menstruation, owing to better circulation, had returned. The character of the cirrhosis was not definitely determined.—*Wien. kl. Woch.*, 1907, p. 727.

**Abdominal Arterio Sclerosis and Related Conditions.**—PEMTZ draws the following conclusions:

1. Arteriosclerosis may lead to severe attacks of abdominal pain, often of the colicky character, which may have some feature resembling angina pectoris, or may pass into an attack of angina.

2. The attacks are usually brought about by a cramp of the small intestinal vessels, and the resulting rise of blood-pressure. The seat of the pain is probably the sympathetic, whose end fibers are usually excessively sensitive.

3. In addition to anatomical changes in the vessels, functional disturbances (as by nicotin and other poisons) may bring about such cramps.

4. The recognition of the condition is often difficult, and may require considerable observation. The effect of diuretin and vaso-motor drugs on the attack may be of considerable help in diagnosis.—*Munch. med. Woch.*, 1907, Nos. 22 & 23.

**Simple Method of Distinguishing Tubercular from Other Kinds of Pus.**—KOLACZEK and MULLER say that tubercular pus can be distinguished from other kinds by means of Millon's reagents. A small, moderately deep porcelain dish is filled with fluid to the rim with the reagent, and a drop of pus added. Tubercular pus forms a firm scum, and the fluid remains uncolored. Streptococcus pus forms a scum which soon disintegrates, and in a few minutes the fluid is colored red.—*Deutsch. med. Woch.* 1907, p. 685.

## SURGERY

Conducted by

MAX BALLIN, M. D.

**Tetany Parathyreopriva: A Case Report, With a Brief Discussion of the Disease and of the Parathyreoid Glands.**—Removal of all and possibly even a part of the parathyreoid bodies results in tetany. The symptoms of this disease are striking, and the diagnosis is usually simple. In the case reported, the diagnosis of tetany was based, in the presence of thorough electrical tests, first, upon the fact that the patient had never presented any hysterical or other nervous manifestations previous to the onset of the typical clinical features of tetany four days after an operation for goitre which thus supplied a direct anatomical basis for the disease; second, on the analysis of the symptoms, the most suggestive features being the frequent attacks of symmetrical and bilateral tonic contractions of the hands and feet, the involvement of the flexor muscles exclusively, the presence of Chvostek's and Trousseau's signs, the latter characterized by slow contractions accompanied and preceded by cramp-like pains, the additional demonstration of the mechanical excitability of the motor nerves by the stretching of the sciatic nerve and nerves of the brachial plexus; and, finally the fact that coincidentally with the typical spasms all of the above tests disappeared. In this case improvement and apparent cure resulted during the administration of Beeb's nucleoproteid and after the subcutaneous implantations of human parathyroids, the fact cannot be lost sight of that the improvement may have been due to a compensatory hypertrophy of the upper right parathyreoid body which is supposed to have been left. Although it seems probable, on the basis of this case and the investigations of others, that by appropriate organotherapy the symptoms of tetany can be controlled at least temporarily during the administration, the question has not been definitely settled. Moreover the effect of transplantation is still problematic. The practical side of this subject has been furthered by recent researches only in so far as it has been demonstrated that not merely sufficient thyreoid must be left in order to prevent the occurrence of myxedema, but also that a definite part of the thyreoid must be retained in order to insure sufficient parathyreoid tissue and thus guard against tetany.—EUGENE H. POOL M. D., *Annals of Surgery*, Oct., 1907.

**Diagnosis of Arterial Obstruction in Gangrene of the Foot.**—The question where to amputate in gangrene of the foot is very difficult to answer. Some surgeons, as a matter of principle, always amputate above the knee, but others had good results by amputating closer to the gangrenous parts. Even amputations after Pirogoff, Chopart and Lisfranc for gangrene of toes have been successful. To decide this important ques-

tion it would be of greatest value to know in each case how far down on the leg the arteries are obstructed. As a diagnostic sign of the extent of such arterial obstruction MOSHKOVITZ recommends the active hyperemia that occurs right after discontinuing the anemia produced by an Esmarch Bandage. If healthy arteries are present, the whole extremity, first pale from the constriction, will show pronounced hyperemia in one or two seconds after loosening the tourniquet. In arterial obstruction or even partial obliteration, this hyperemia will occur much slower, in fact will extend only as far down on the leg as the circulation is good. The limit of this hyperemia is identical with the limit of circulation and is therefore a very valuable sign in determining the right place for amputation. MOSHKOVITZ applies the elastic bandage for five minutes for this examination. In three amputations for gangrene, he could prove by dissecting out the artery, that the lower limit of said hyperemia after loosening the Esmarch bandage was really identical with the limit of arterial obliteration.—*Mitteilungen aus den Grenzgebieten der Medicin und Chirurgie* Vol. 12, p. 1-2.

**Post-Operative Thrombophlebitis.**—Among 1,756 laparotomies and plastic operations in the gynecologic service of the University hospital of Ann Arbor, there occurred 11 cases of post-operative thrombophlebitis. The symptoms usually appear from ten days to three weeks after the operation. In many instances the patient is ready to leave her bed, or is already up and around. Fever, or even a chill, may usher in an attack. There are evidences of other gastro-intestinal disturbances. Feeling of weight and stiffness in the affected limb, which soon becomes the seat of a dull throbbing pain. Tenderness can be elicited along the course of the vein which is usually marked by a red line. The superficial veins may also present the same signs showing an extension of the disease. The inguinal glands may be enlarged and tender. The limb usually swells from below upwards, and may attain great size. The left leg is more often attacked than the right, although both may be the seat of the disease. Wherever emboli find lodgment metastatic abscesses also occur with their attending symptoms. The lungs, liver, kidneys, spleen, and even the brain may be so affected. Prognosis must be guarded, as the chance of pulmonary emboli is ever present. Patients must not be allowed to get up too soon and the remote effects must be carefully explained.—W. H. MORLEY, *Surgery, Gynecology and Obstetrics*, Sept., 1907.



## GYNECOLOGY AND OBSTETRICS.

Conducted by

B. R. SCHENCK, M. D.

**A Simple Method of Removing Stones from the Lower Ureter** is described by Bartlett, who has recently operated upon four cases by the method. It is only within recent years that the prevalence of ureteral stones has been appreciated, and it is therefore important to record operative procedures, especially the more simple ones. The diagnosis is usually made by the X rays.

Bartlett's method is to make a short incision parallel to the external border of the rectus from the semilunar fold of Douglas to the pubis. The incision goes down to, but does not open the peritoneum, the latter being pushed toward the median line. The operator's hand keeps close to the peritoneum, which will drag the ureter into the wound.

With the ureter between the thumb and finger it is perfectly easy to follow the tube throughout its pelvic portion and thus locate the stone. The stone, when found, is tightly held between the thumb and finger and a small nick made in the ureteral wall over the stone, with a knife. The stone is then squeezed out. The first time this is done the operator will be astonished at the ease with which the stone finds its way out of its resting place into the grasp of the fingers, it not being necessary to introduce the other hand or any grasping instrument into the wound.

No stitches are taken in the ureter; in fact, the wound is not seen. A fine cigarette drain is carried down to the vicinity of the wound, and the abdomen closed except at the lower end. The drain is removed on the fifth or sixth day.

This method makes possible three most desirable objects, the use of a small incision, a minimum injury to the ureter and a short, simple operation.—*Surg. Gyn. and Ob.*, Sept., 1907.

**Internal Diseases as Indications for the Interruption of Pregnancy.**—WARFIELD lays down the following principles as regards tuberculosis:

1. Tuberculosis of the larynx is a very grave complication of pregnancy, and is a justifiable indication for its interruption. To be of value it must be done in the first two months of pregnancy.

2. In advanced cases of tuberculosis of the lungs in pregnant women abortion is not justifiable. The exhaustion following it differs very little from that of normal puerperium. The child in such a case should be our first care.

3. In early tuberculosis of the lungs, if the process is advancing and the woman losing weight and if she can be put under the most favorable surroundings, there might be a justifiable indication for its interruption.

4. In early tuberculosis with the process apparently stationary, the patient should be simply kept under observation. There seems to be only one rule, if abortion is performed it must, in all cases, be done as early in the pregnancy as possible.—*Interstate Med. Jour.*

**The Treatment of Dysmenorrhea Through Mammar.**—POLANO bases a new treatment for dysmenorrhea upon the theory that there is an antagonistic physiologic action between the mammary glands and the ovaries. When the ovaries are active the mammary glands are resting; when the glands are functioning the ovaries are quiescent, as in pregnancy and lactation. POLANO believes that the intensity of menstruation can be regulated by depressing the ovarian activity, which, in turn is accomplished by increasing the activity of the antagonistic mammary glands.

A few days before the expected treatment Bier's suction glasses are applied for half hour daily periods to both breasts. The treatments are continued until the end of the period. The suction produces hyperemia which persists for some hours. This hyperemia of the mammar is supposed to depress ovarian action and thus assist in alleviating the dysmenorrhea.

POLANO has treated a number of patients by this method and has been uniformly successful, so that he is enthusiastic as to its merits.—*Munch. med. Woch.*, September 3, 1907.

**Ovarian Pregnancy.**—For many years there has been a dispute as to whether ovarian pregnancy ever occurs. SPIEGELBERG laid down certain criteria by which a case must be judged. They are (1) the tube on the affected side must be intact; (2) the fetal sac must occupy the position of the ovary; (3) the sac must be connected to the uterus by the ovarian ligament; (4) definite ovarian tissue must be found in the sac. WILLIAMS believes that but 13 cases thus far reported are positive. WEBSTER exhibited two specimens before the Chicago Gynecological Society in April, both of which came from one small town in Wisconsin.—*Surg. Gyn., and Ob.*, October, 1907.



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**The Uses of Sulphate of Magnesium as a Local Application.**—The local effect of magnesium salts has lately received much attention in England. TUCKER reports his experiences with the sulphate in relieving pain and reducing inflammation when applied locally. He employs a saturated solution in water with which from 15 to 20 thicknesses of ordinary gauze are saturated. This is applied every half hour by pouring more of the solution over the application as it dries, not removing it until the end of 24 hours. The parts are then washed with water, and the dressing reapplied if necessary. The surface is found blanched and insensitive. There are no ill effects. TUCKER reports remarkable success in cases of orchitis of all kinds, acute rheumatism, erysipelas, neuritis and simple contusions. He does not explain its action, but insists that it serves the purpose of a local analgesic without baneful effects in a very satisfactory manner.—*Therapeutic Gazette, London, April, 1907.*

**The Therapeutic Value of Apomorphin Hydrochloridum.**—FISK, in an exhaustive study on apomorphin hydrochloride, sums up the value of this drug in an excellent and complete manner. Its effects when administered by mouth and by hypodermic vary widely.

Hypodermically, in doses from 1-20 to 1-6 of a grain, it acts as a quick and certain centric emetic. It is also recommended where hypnotics and antispasmodics are indicated, in a smaller dose, preferably about 1-40 of a grain. When given to children or debilitated subjects, an appropriate dose of strychnin should be simultaneously administered.

By mouth its centric effects are too uncertain to make it of value, either as an emetic or a hypnotic. Here its field is limited to its expectorant action. The average adult dose is then 1-8 of a grain. It should be given in a simple syrup with a few drops of hydrochloric acid to insure its solution.

Apomorphin does not increase the effect of morphine, codeine or heroin when given by mouth, especially if the pure crystalline product is used. Hence it may be used in conjunction with the other narcotics given for their depressant effect.

The crystalline apomorphin hydrochloride should always be specified when prescribing it as an expectorant. The danger is of getting a substance adulterated with morphine. The slight greenish discoloration occasionally met with in tablets or solutions does not necessarily contraindicate its use, if it has been prepared originally from the pure product by a reputable drug firm.—*Medical Record* Sept. 28, 1907.

**Intratracheal Injections in the Treatment of Chronic Diseases of the Lungs.**—An excellent review of the indications for and possibilities of intratracheal injections appears in the editorial columns of the *Medical Record*.

For those who are suffering from tuberculosis and whose financial condition precludes the generous treatment that we generally prescribe for such patients, symptomatic treatment aimed at the alleviation of the severer lesions of this disease must always be employed. Such treatment has been aimed directly at the seat of the disease and how much it has really helped this class of sufferers cannot be definitely estimated. There can be no doubt, however, of the relief it has given symptoms of cough, dyspnea, fetid expectoration and those conditions due to local conditions rather than effects of general intoxication of the organism.

GALEBSKY applied the treatment to 17 patients; 14 were tuberculous, two had putrid bronchitis; one simple bronchitis, and one bronchiectasis. Cocaine was used at first on the larynx and later dispensed with.

The most gratifying effect of this treatment was a diminution of the cough, which up to this time had been interfering with the rest and general comfort of the patients. The amount of sputum was also diminished; it became thinner and more readily expectorated. The nauseous odor accompanying the putrid bronchitis and bronchiectasis soon disappeared and the patients noted a general improvement.

This form of treatment has not received the widespread attention that it deserves and its employment it is felt would at least relieve many unpleasant symptoms.—*Medical Record, Sept. 28, 1907.*

## NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

**Loss of Comprehension of Proper Names.—**

FRY encountered an interesting case of a man of 40, who, after an evening of bibulous indulgence, was found next morning in a dazed state with evidence of trauma above the ear in which region a large area was swollen and tender. He cleared up rather rapidly but could recall only to a limited extent the events of the evening, and though he talked very clearly and intelligently of affairs in general, it was soon noticed that he ingeniously avoided the use of proper names and it soon became evident that he could not recall, use intelligently, or comprehend proper names. He would write them readily at dictation, but seemed to have no import of their meaning from so doing. He has since improved, but says his greatest trouble, as a result of his injury, seems to be a shortened vocabulary. In this connection, attention is called to the fact that it is not well to use the words memory and recollection in the same sense, the former meaning the storing up of sensations, the latter the ability to bring them into consciousness—the function which seems to have been temporarily suspended here.—*Journal for Nervous and Mental Diseases*, October, 1907.

**The Pathology of Epidemic Cerebro Spinal Meningitis.—**

MCDONALD presents the results of his studies of an epidemic in Edinburgh during which he has been able to make some 30 autopsies. He reviews the work to this time on the etiology and the discussion pro and con as to the responsibility of the meningococcus as the offending factor, and submits a summary of post mortem appearances in his autopsies, gross and histological, of which those of brain and cord seem the most important.

The dura mater showed no striking change. The surface of the brain in all cases was markedly hyperaemic with an exudate in the meshes of the pia-arachnoid, which was most marked at the base posteriorly. The brain, on section, was found oedematous with, sometimes, purulent exudate. The nerve-roots at base of brain in the acute cases were surrounded by purulent lymph.

The cord, in practically all cases, has shown an acute leptomeningitis and in the great majority of cases a copious exudate of lymph has been seen, sometimes uniformly covering the cord, sometimes in patches.

The histological examination of the brain has shown often a preponderance of large mono-nuclear cells. Typical meningococci were found, both intracellular and free, in all but one of the

acute cases. Appearance of cord tissues closely corresponds to that of the brain.

Of the meningococcus the author says that "as seen in the cerebro-spinal fluid, it is an organism with such definite morphological characters that it may be identified in that situation with a fair degree of certainty by examination of films alone." "It occurs as a round or slightly oval coccus, sometimes single, usually seen in pairs as a diplococcus, the opposed surfaces of the cocci being flattened." He has not seen the chain forms. It is most usually seen within the polymorpho-nuclear leucocytes of the exudate but free forms are seen,—the intracellular position, he thinks, being less constant when the organism is specially virulent. Their number varies much and prolonged search is sometimes necessary, even in acute cases. It likewise shows great variety in size.

He concludes as a result of his studies, which are only partially abstracted here, that the recent epidemic in Edinburgh has been definitely due to the meningococcus—that in the course of such a meningococcal epidemic pneumococcal cases may occur which can only be recognized by bacteriological examination—that the organism grows but feebly apart from the body, even in the most favorable artificial media—that the direct transmission of the disease from patient to patient is rare; that posterior basal meningitis is pathologically identical with acute cerebro-spinal meningitis, differences being due to a varying virulence on the part of the organism.

Further conclusions are to the effect that, though the disease is only exceptionally infectious from patient to patient, when an epidemic is prevalent there is quite possibly a widespread distribution of the organism effected through sight coryzas and that these find most ready lodgment in those of least resistance, and so most susceptible, viz., infants and young children.

The author believes that in ordinary cases the organism having found lodgment in the upper respiratory passages, reaches the central nervous system through lymphatic channels, and that symptoms of the disease are mainly produced locally in the central nervous system—grave histological changes often taking place in these tissues. The disease can be reproduced in monkeys by intra-spinal injection of the organism with its products—but as all the indications are that the essential toxin belongs to the endo-cellular variety, serum therapy is not yet a practical possibility.—STUART McDONALD, *Review of Neurology and Psychiatry*, July and August.



## GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

**Hematuria.**—Hematuria signifies "bloody urine" and is a term applied to the symptom of a pathological condition and should not be considered as a disease. Bloody urine is of so frequent occurrence that it is exceedingly important to locate accurately its source and the causative factor, for it is indicative of a grave condition.

Before the days of the cystoscope and ureteral catheterism, there were many rules formulated to determine the source of bleeding, but with the advent of the cystoscope, most of these rules were found, at times, to be erroneous.

It has been taught that blood in acid urine comes from the kidney. If the urine contains worm-like casts, the bleeding has for its source the pelvis or ureter, and urine mixed with clots or red blood comes from the bladder, while bleeding due to prostatic trouble or the posterior urethra, follows micturition, whereas that from the anterior urethra precedes the flow of urine. It has also been taught that the location of the pain was corroborative evidence as to the source of the hematuria; pain radiating along the course of ureter into the groin or pelvis, is pelvic or ureteral in origin. Pain in the suprapubic region or high up in the perineum points to a lesion in the bladder or the deep urethra.

The physical examination of the patient is particularly important and with a thorough examination of the urine, we are usually able to locate the exact cause of the hematuria.

The ordinary rules for locating the source of bleeding sometimes fail. Dr. Bransford Lewis reports the case of a man who, after urethral dilatation found blood clots in his urine; later fresh blood appeared. Supposedly the source of the blood was the vesical neck which had been rather stretched by the bougie. Subsequent events, however, showed conclusively that the blood had been of renal origin.

Hematuria does not necessarily mean blood-colored urine, nor urine in which clots are evident, for there may be rather a grave process developing with only the microscopical elements of the blood present.

The most frequent and important causative factors are trauma, calculi, tuberculosis, malignant or benign tumors, drugs and parasites. These may cause the bleeding to arise in any portion of the urogenital tract.

Bleeding from the anterior urethra is not usually associated with pain. It appears at the meatus or it may drip after urination. The first urine is bloody, the second may be clear and the last tinged with blood or clear. The use of the urethroscope will readily show the cause of the hemorrhage.

Hemorrhage from the posterior urethra is associated with pain both during and following micturition. The blood makes its appearance at the end of urination or may follow it. Papillomata occurring in the posterior urethra are a rather frequent cause of posterior bleeding.

When bleeding occurs without history of gonorrhea, trauma, or growth, a tubercular condition of the posterior canal may be suspected. Chronic inflammation, leading to ulcers of the superficial layer, frequently results in severe hemorrhages; ulceration is the rule in tuberculosis, hence also is hematuria. New growths in the bladder, such as papillomata, are a common cause of bleeding. The characteristic sign of hematuria produced by new growths is that it is not increased or lessened with rest or motion and not usually affected by treatment.

In cases of nephritis, either acute or chronic, hematuria may occur. In the chronic types it lasts much longer and is more profuse than in the acute types. A microscopical examination of the urine, will, as a rule, clear up the diagnosis. Heitzmann, of New York, has proved beyond a doubt that epithelia from the different portions of the urinary tract can readily be differentiated.

Hematuria, whether from the upper or lower urinary tract, can absolutely be diagnosed by a cystoscopic examination together with catheterization of the ureters. A hemorrhage which arises from any portion of the urinary tract anterior to the bladder may be diagnosed by the use of the urethroscope.

Vesical, ureteral, or renal hematuria may be differentiated by the cystoscope and ureteral catheter. After a diagnosis as to the source and cause of the blood in the urine has been made from microscopical examination, the diagnosis is confirmed either by the urethroscope, cystoscope or the ureteral catheter.—L. W. BREMERMAN, A. M., M. D., *Amer. Jour. Dermatology and Genito-Urinary Diseases*.



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## Original Articles

### THE PSYCHASTHENIC STATES\*

CHARLES W. HITCHCOCK, M. D.,

Detroit.

It is the classifications of Kraepelin and of Krafft-Ebing which best accord their proper degree of importance to the psychoses of exhaustion, those psychoses which arise upon a neurasthenic basis. And, in practice, it is not infrequently that the clinical picture of neurasthenia, with the syndrome of physical fatigue chiefly in evidence, gives place to states in which mental instability, perhaps, rather, mental inability and easy mental fatigue bulk most largely.

The causes will not especially concern us here, but the trend of the age toward living at high tension, the tendency to over-do, to work without rest or play, to emulate that pressure exemplified by the speed-struck sight-seer, the fashionable frivoller, and the horde of lesser lights who ape these and seek to be their satellites, all contribute to that never ending stress which so greatly strains the integrity of nervous and mental balance and inevitably strands a certain number upon those rocks and shoals which await the nervously unstable.

Responsibility is to be traced to a forsaking of the simpler paths and to the false and shallow views of life which emanate from the worshippers at the shrines of false gods. Life is regarded as a well of amusement and pleasure, out of which each is to drink, at however dear the cost, the deepest possible draught. An unstable nervous organism is not at all reckoned with, nor does the nervously defective take heed to his ways, although, given a personal equation unstable upon the nervous side, the result, by proper training and education may admit of the leading of a useful life within normal limits, while a sound nervous system gives one a basis which is to be upset only by the strongest buffetings and a straining of its strength to the utmost.

Happily, the mental are less common than the physical phases in most of these lapses from nervous integrity, yet of sufficient frequency are these psychasthenic cases to make it most important that their clinical significance be duly appreciated and their relations to other forms of insanity nicely discriminated.

\*Read before the Mississippi Valley Medical Association, Section on Medicine, at Columbus, Ohio, October 9th, 1907.

It goes without saying that we are not primarily dealing here with the grosser insanities, those having an undoubted underlying organic basis, save as they are to be differentiated from these functional conditions.

Anxious friends are often more concerned as to prognosis than they are as to diagnosis and treatment, and this will of course largely depend upon a nice appreciation of the real pathology present. What, then, are the psychasthenic states, what their distinguishing features and how are they to be differentiated from other psychoses?

The hysterias are here, and here, too, are the neurasthenias, that is to say, those cases in which the psychopathic phase is most to the front and physical signs less in evidence than the mental, conditions where nerve tire and nerve imbalance are shown chiefly in disordered psychic centers. The various phobias, agoraphobia, claustrophobia, and the like are frequently found here, and, indeed, the clinical aspect is one of distressing self-centeredness. That annoying class of patients, who, metaphorically speaking, ever have their finger upon their pulse, who are sure they have syphilis, consumption, organic heart disease, or Bright's disease, and upon whom your repeated assurance of the utter absence of anything even pointing toward the confirmation of their fears makes no impression, affords many illustrations of the psychasthenic states and though the road to recovery be many times a weary one, a satisfactory result makes its travel worth while. I shall cite later on one or two examples of that miserable class whose disordered mental plane seems to be not above the persistent consideration of the genitalia and whose obsessions make them assured that they are in some way or other sexually doomed.

The unfeeling and long-suffering have not inhibited their disposition to denom-

inate as "cranks" many who are properly registered in this class, the eternal arguer, who argues, too, to no purpose, the man who needs to be assured and reassured that his head is not one-sided, the fusser, who must have everything arranged in a certain way and who really never sees anything in order but wears himself out in an endeavor to put to rights this disorderly world, the would-be dyspeptic who is sure that everything he eats has disagreed with him. These are psychasthenic, some to a greater, some to a lesser degree. So miserable are some of these patients that suicide is talked of, but happily this usually ends in talk and seldom does a psychasthenic patient make a seriously suicidal attempt. Serious mental application is out of the question. There is inability for serious and long continued mental processes and this mental inability is often a source of great distress. Inability to decide anything, even the simplest course of action, produces a state of vacillation, often painful to see and which dominates the mental life and leads to mental confusion and despair. A great danger from this condition is that more or less mental apathy and lack of vigor may persist if the departure from the normal has covered any great length of time, though happily many recoveries are entirely satisfactory.

On the mental side, we frequently find, as the more common chief points of departure from the normal, the marked irritability on slight provocation, the easy mental fatigue, in some cases going almost to the extent of mental confusion, frequent depression and more especially a persistent and extreme self-centeredness. The physical side of the canvas presents various neuralgias and a legion of aches, pains and tender areas, an inability to sleep, a feeling of languor and easy physical fatigue, reflexes generally increased, sundry paresthesias, formication, numbness, etc., much gastric and

intestinal fermentation, constipation alternating with periodic diarrhoeas, and a resulting impaired nutrition, a diminution of sexual appetite and power and varying irregularities of pulse.

Not a hopeful picture, and yet there is here ample ground for such hopeful outlook as to make the study of these cases well worth while and their judicious management a matter of the greatest satisfaction both to physician and patient.

Some cases will serve to illustrate certain points:

I.—F. E., age 20, an architect's assistant, who has been working very hard and uninterruptedly. Save that his paternal grandmother was at about 40 mentally stirred up about religious matters and for a time an inmate of an asylum, his family, as also his personal history, is negative. He gives an account of easy fatigue of late, but he has changed much mentally, displays much tremor and hesitation, his mental aspect being so vacant as to give rise to possible suspicions of dementia. He says he is much bothered by "foolish, wandering thoughts" and an utter inability to long concentrate his thoughts upon any work. His appearance was quite pathetic.

A regulation of his daily life, even to the laying down of a daily program, with stated periods of rest, exercise, and his daily wet-pack, with prohibition of all mental work, attention to elimination and the administration of appropriate tonics, made a different boy of him within two months, and after three months he was happy in cautiously resuming his work. He has remained well.

II.—S. G., a tailor, native of Russia, age 32; family history negative; has been greatly worried over domestic troubles, but has struggled against depression. He is weak, languid, of flabby appearance, easily fatigued on either physical or mental exertion, presents a simple, common picture of nervous and psychic asthenia. Improvement was slow.

The following were of that class of cases which seemed to revolve about the sexual:

III.—G. M., age 18, a farmer's son with negative family and personal history, seemed on first examination to be mentally more than lethargic and hesitated and said: "Can't think now," when asked to give me a history of his case. His father had noticed that for six weeks he had been abnormally absorbed and he had been seen sitting on the edge of his bed contemplating his genitalia in a deep, brown study. He has a good color, and a sturdy development, but responds timidly or not at all to questions addressed to him, finally saying that the boys were "all against him." Though his mental reflex is distinctly dulled, he can correct his persecutory ideas and admits that they are baseless.

A hard bed, regular physical exercise, circumcision and cure of his varicocele, a cold morning sponge bath, regular work in the society of others, was shortly successful in restoring this husky farmer to a normal mental tone.

IV.—F. H., a teacher and a college graduate of 29, whose parents were of neurotic temperament but whose family and personal histories were otherwise normal, was pale and timid in appearance, with clammy hands and an expression which told of distress and despair. He handed me a paper on which he had written his confession of sexual excess and abuse and to which he appended a pathetically underlined inquiry asking if for him there was hope. He had not been able to sleep for more than from one to five hours a night of late. He has taken more or less chloral. Has worked hard during the college year and through his summers, has allowed himself no adequate rest. Pupils are large and patellar reflexes quick. He has been able to correct thus far some mild delusions of persecution. Regulation of his physical exercise, cold baths, with an interdiction of mental work and later transference to the regular work of a farm life was entirely successful in restoring this patient to his normal state.

V.—B. S., 29, a draughtsman, comes of neurotic stock, looks the picture of health, but complains that for three or four months he has had pain in the back and head and at times is so restless that he cannot apply himself at all to his regular work without suffering for it. He worries constantly, has no decision, is hardly able to decide to go to work or to the doctor. He asks the cause of his trouble, asks if he has not "kidney trouble" and "liver trouble," and "disease of the stomach;" asks if his masturbation as a boy is responsible for his condition and wishes to have



his genitals examined, is sure that they are atrophying and "all withering away." He cannot accept my assurance that his organs are entirely normal. He followed directions badly and made only a slow and partial recovery.

VI.—The mental asthenia is well shown in the case of D. M., a salesman, age 48, who has worried and brooded some over business changes in the last six months, but of late little things have worried him much more than larger affairs. He is continually reproaching himself that he has not done otherwise, ever regretting that he has done as he has, bemoans his errors and yet is unable to correct any of them. If he starts to cross the street, he is so vacillating as to be unable to decide to carry out his purpose. He so lacks in decision that he accomplishes practically nothing. Though he bemoans and regrets, there is no deep depression and no temptation to suicide. By dint of great moral bracing he was able to follow out in a half-hearted way a program of treatment laid down for him, but through it all he "kicked," argued, regretted, declared that he would not do the things advised, but did them and improved in spite of himself. He is typical of the indecision and vacillation so often in evidence. Much may often be done for these cases and the treatment is quite as much moral as medical.

The following case was strongly suggestive of dementia praecox, but the early and apparently satisfactory recovery has raised some query as to whether it is not more properly a psychasthenic case:

VII.—A young woman of 20, who once in childhood developed some imperative conceptions which later disappeared. She has been a diligent student through the secondary school, preparing for college, and at the same time doing special and most creditable work in music. Her paternal grandparents broke down at 70 and 73, a brother is a subject of an infantile paralysis, and she has been a bit peculiar. She is a good example of a neurotically inclined girl whose ambitious parents, had they followed the part of wisdom, would have curbed her developing powers instead of pushing her beyond the limits of her abilities. She should have learned to make haste slowly, but after finishing the work of a girls' school, she continued in post-graduate work, and then, though her

health had been somewhat precarious, went to an eastern college. Though she remained there two weeks, she did not unpack her trunk nor settle her fees, though she repeatedly started for the office to do this. She had a feeling that she could not stay, regretted that she had come, and was much relieved on receipt of a telegram which bade her return home, whither she went at once, seeming at first quite like herself for the most part, aside from her disposition to lie still and see no one. This continued for a month or more when I saw her. She was then much in bed, restless, sleeping poorly, unable to express herself clearly, apparently losing the thread of a sentence before she had finished. She appeared as if confused and as if failing to express herself either on this account or because of some sort of inhibition. She talked rather vaguely and disconnectedly. Negativism was markedly present. She resists answering questions, resists assistance to get up, resists taking medicine, resists going out. She did badly at home, was depressed, talked of suicide, and continued in this state of constant negativism, her removal to a private hospital in the country being accomplished only by force, though she went quietly when once started. The same condition continued here for a time, but improvement once begun was steady and satisfactory. She has now been several months at home and apparently perfectly well, the institutional environment, with the careful hygienic and tonic regimen having supplied that of which she was so much in need.

Case VIII illustrates some difficulties in diagnosis from other psychoses. It is that of a young woman of 27, a college graduate whose family history is negative. She has always been healthy and well. She had a slight digestive disturbance and became an appendicitis phobist. She had only at 27 begun to discover that her life was idle and self-centered and she became wakeful and despondent, on great mental tension and inclined to reproach herself. She declared that her memory was greatly impaired, but conversation showed no evidence of it for either recent or remote events. She declared that she was unable to receive much impression from reading and was unable to apply herself; said she felt stupid and dumpy and that her "mind was slipping away from her." Her pulse was 96 to 100, heart sounds and temperature normal, reflexes quick. She is greatly self-centered, fatigue is mental rather than physical. A note made at the time of my first examination recites that she is "much more mentally than

physically asthenic." Her failure to follow out measures laid down for her and her refusal to do as wished led her rather reluctantly to go to a private hospital where she remained some three months. She was but little if any better on her return home, was self-centered and despondent and finally went to another institution where a second suicidal attempt was successful and closed the tragedy of the case, which was probably one of dementia-precoc.

The diagnosis is by no means always always easy, since psychasthenic states may precede and lead up to other and less hopeful psychoses, playing the role of a preliminary stage thereto. As a rule, the mental condition is a more stable one in the psychasthenic states than in dementia praecox and the neurasthenic or psychasthenic patient usually more clearly understands the conditions actually present. The early stages of paresis afford some cause for possible confusion, but the physical stigmata of paresis will usually soon remove any difficulty.

The treatment should be judicious, but need not be obscure nor complicated. A tactful judgment is necessary in the decision as to whether the case demands institutional care or is likely to do better in the presence of such environment and regimen as can be provided outside of an institution. That anomalous class of hospitals can, I think, be justly viewed with suspicion, which solicits cases of

disease of the nervous systems, yet claims to bar its doors to all mental cases, for these are cases often on the border line, some of which could be committed without hesitation as insane and others of which one could hardly or wisely say were distinctly insane. Indeed, the institution with the moral support of its daily regimen, its tonic and eliminative treatment, its hygienic life, is a veritable God-send to some patients, supplying the very moral brace which their cases imperatively demand.

From the allusions already made to the therapy of these cases it will be rightly inferred that this is by no means a matter wholly or largely of drugs. While these have their proper place, the moral treatment, encouragement and suggestion, the support of regular living and a wisely planned daily program, which shall not omit proper hydro-therapeutic measures, constant attention to the eliminative functions, the securing of proper sleep at night and rest during the day, and a moral education as to proper modes of living—all of these are of far greater importance than the seeking of specific drugs or of any shorter path to the normal state.

Patiently, judiciously, tactfully, and wisely followed, such a course in a large number of cases leads to the happiest of recoveries and proves a source of the largest satisfaction to both physician and patient.

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Post-operative hemorrhage from the base of the bladder that proves inaccessible to ligatures, and uncontrollable by packings, may be checked by the following method: Through several thicknesses of gauze, cut in square, pass a double strand of heavy silk or of twine fastened on a stout needle. With the patient in Trendelenburg's position and the bladder widely opened, thrust the needle from within directly through the perineum, and bring the gauze firmly against the bleeding surface by pulling upon the threads, which are then to be fastened to an outside dressing.

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Subiodide of bismuth dusted on an oozing granulating wound promptly stops the bleeding. It is also an excellent stimulant to the growth of epithelium.

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Collodion, commonly used to seal a puncture wound, as after aspiration, will not adhere if the spot is wet or bleeding. To obviate this, pinch up the skin, wipe it dry, apply the collodion and continue the compression a minute or so until the collodion has begun to contract.

## ONE YEAR'S EXPERIENCE IN THE HOME TREATMENT OF TUBERCULOSIS\*

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W. M. DONALD, M. D.,  
Detroit.

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A general objection which may be entered to this paper at the outset, and one which bears force in its trend, is that no one has any right to base any conclusions on one year's experience in a disease such as pulmonary tuberculosis, whose element of chronicity is greater than in almost any other disease with which we are acquainted. I beg to meet this objection at once by stating very frankly that I have no remarkable cures to announce in favor of such treatment, nor any disastrously fatal results, which might be used as an objection to such a line of treatment. What I desire to do is to give a frank statement of work done during the year; of success achieved, of failures, resulting; to analyze as carefully as may be the cases as they are recorded, and to seek to draw lessons from failures as well as from successes.

It is hardly necessary to reiterate what has been said over and over again, that probably 98 per cent of our cases of tuberculosis, both of the lungs and of other tissues, must be treated at home and treated by the family physician. The very small minority of about two per cent may, on account of their social and financial standing, or on account of a happy combination of circumstances, find themselves able to change their place of abode, and desist from all work while seeking a cure. Of the two per cent approximately who can do this I have nothing to say. Their numbers in

the first place are too insignificant to consider, and their opportunities for feeding, for alternating their places of abode, consistently with climatic changes, and for keeping themselves constantly stimulated by change of environment, all tend to make them comparatively easy patients to treat, and, if they are at all amenable to discipline, to cure.

The most of our cases of tuberculosis occur, as is well known, among the middle and poorer classes. Most patients must support themselves, and likewise frequently support several of their immediate family, while they are undergoing treatment.

Let us say then as preliminary that about 98 per cent of all cases of tuberculosis of the lungs must be treated at home, and that of the 98 per cent about 80 to 90 per cent must support themselves as well as aid in supporting others.

Fortunately for us as physicians, and fortunately for our patients, it has been discovered by incontrovertible experience, that many cases do better at home under the care of their own family physician, with the judicious, loving attention of kindly relatives, than away from home, either in a sanitarium with strange surroundings, or in an ideal climatic environment where conditions for obtaining necessary food and for securing necessary funds are notoriously bad.

A change of opinion in this regard has come with remarkable rapidity during the last ten years. Ten years ago it was

\*Read before the Michigan State Medical Society at the Saginaw meeting, May 15 and 16, 1907, and approved for publication by the Publication Committee.



thought extremely inadvisable for any tubercular patient to remain in his home climate; while now the belief is that, generally speaking, the patient does better to remain in his home environment, providing his case is taken in charge early enough. The general feeling is, moreover, that a person cured in a remote region, and in a high altitude, and with dry air, must constantly remain in those surroundings and under those conditions to maintain the cure. Life in such environment might not be at all unpleasant, were it possible for an ordinary artisan or workman to secure a livelihood there, but as is well known the favored region for tubercular patients is the region of aridity, such as the mountains of Arizona and New Mexico, or the sands of California and Florida. There a man has difficulty in living some times with wealth at his command, while one depending on the labor of his hands to maintain life is sure to starve.

Let us state here likewise, also as a reiteration, that the treatment of pulmonary tuberculosis resolves itself into the treatment of general mal-nutrition. A poor climate, with excellent food and cheerful surroundings is inexpressibly more to be desired for a tubercular patient than an ideal climate with poor food and cheerless surroundings. Let it likewise be stated here, that it is not so much a matter of climate, or particular kind of air, or particular altitude in which that air is inspired, as it is *air* itself. In other words, if we can get our patients to live outdoors in the climate of Detroit or Michigan, and at the altitude of those points in which they reside, they are to all intents as well off as if they were living outdoors in the altitude of Tucson or Santa Fe, and with the ideal sunshine of that location. Of course, it is very much more comfortable for a person to live outdoors twenty-four hours out of twenty-four with a climate

such as those places I have mentioned in the southwest, than for one to do the same thing in the climate of Michigan, where one day you may see the thermometer at 90, and a week after may find it shivering around 30. Moreover, the rainfall is much greater in our own neighborhood than it is in the points west, and that would naturally, of course, drive people indoors. However, with suitable shelter, and with a little insistence, and with the proper clothing, and the proper direction from the physician, fresh air can be obtained in abundant volumes, and will do practically as much good here in Michigan as in the arid regions of the southwest. If, moreover, there can be found anything more pathetic than the picture of a sick tubercular man away from home, away from friends, unable to participate in the several activities of his surroundings, becoming morbid, losing heart, losing strength, losing shortly life, in these unwholesome environments, then I have not seen this more pathetic picture.

Like every other physician, I have been enamored with this climatic cure of tuberculosis, and realize to its fullest extent the exhilaration which comes from an increase in altitude, and the blood changes which are so beneficial from such altitude. It is hardly necessary to remind you of the recent discoveries in regard to the increase in the haemoglobin and in the corpuscular elements of the blood which come from high altitudes. I have been, however, forced like other physicians to the conclusion that for all practical purposes, as I have suggested before, the great bulk of our patients must be treated at home. And since we know that the quatrain of *fresh air, sunshine, abundance of food, and rest* are the essentials which go to the cure of tuberculosis, and since these can be obtained at home as well as, or better than, in a remote region, so I have adopted the home treatment of tubercu-

losis as the ideal one in handling this disease generally. For certain well-selected cases I should still recommend a climatic change with a high or low altitude to suit the individual case, or I might in certain well-selected cases even recommend an ocean voyage, or a residence in a lumber camp among the pines, but these cases would be in the great minority.

Could these truths be forced home to every physician in the land, and could every physician be taught that it was necessary that he should give these cases special, and continuous, and always encouraging care; stimulating by every means in his power the *hope* for a cure and belief in a cure, which are, I believe, among the chief essentials for a cure; could, moreover, every physician in this land be induced to watch for these cases of tuberculosis, to be on guard for them, to seize them at precisely the psychological moment, i. e., the period when the lung has not become seriously invaded, but when the pre-tubercular manifestations are well marked: and could he obtain from his patients acquiescence in his demands for a scientific anti-tubercular treatment, then I believe that in a few years this disease, this dreaded white plague, will have become changed, and we, who view so sadly the possibilities of cure in cases coming under our observation late in the disease, would have our sorrow changed to joy in the reception of cases always in the early stages and thus always presenting possibilities for a permanent and complete cure.

And in this connection I may be permitted here again to emphasize that which I think is too sadly and too generally overlooked, and that is that if we desire to cure tuberculosis it is absolutely necessary that the cure should proceed from the early stage of the disease. Taken early there is no disease more

curable; taken late there is no disease more hopeless.

Let me emphasize this fact still again, because I feel that it is one not recognized by the very men who should recognize it, if we wish ever to stamp out this plague, viz., the great body of general family practitioners, who see these tubercular cases always from the first and usually in their pre-tubercular stage, the stage when the patient is ailing and sickening and preparing the soil for the reception of the pathogenic germs.

With, then, the disease properly diagnosed, and with the physician in charge possessing a full understanding of the principles of modern scientific treatment, it is incumbent upon him that he take into his fullest confidence the patient who is suffering from incipient tuberculosis; that he lay before the patient the true inwardness of the situation; that he insist upon his clearly understanding that he is a victim of tuberculosis; that according to modern scientific belief this is a curable disease; that the cure rests largely with the patient himself; that his cure must proceed at home and under the care of his family physician; and that the treatment will extend itself not over days or weeks, but over months and years. Let him understand fully, moreover, that it is the belief of the physician that with proper co-operation on the part of the patient, the possibilities for cure are excellent. With a proper understanding of the situation, such as I have enunciated, it becomes an easy matter to treat the patient. There is no hiding from view the diagnosis, no surreptitious whispering to the friends, no ominous shaking of the head, no equivocation which may excite the suspicion of the afflicted one, but a frank, free, honest understanding between physician and patient. With such an understanding I think all of us will agree that the situa-

tion is greatly simplified and the cure wonderfully hastened.

Let me now recite some cases that have been under my care during the past year. I have had under observation in all eight cases during that time. One of them has passed from under my care into the hands of another physician and is about to die. I saw her first about November last. She was a young married woman, and had a large area of tubercular consolidation at the base of the right lung posteriorly. She had been for some time under the care of one or two other physicians, but as I gathered from the patient, she had received practically no treatment beyond a little cough medicine. The case had been contracted from her brother, whom I attended for a few weeks last July and who died in August, 1906. She was not a good patient to treat, being unruly and flighty, and seemed to be wholly unable to comprehend the truth of the situation. I was very emphatic in regard to certain things being done if she wished at all to be improved, and there coming a sharp disagreement between the patient and myself I retired from the case after a week or two of treatment. My successor in the case I fancy found things equally bad, and was able to do but little for her.

The remaining seven cases I will discuss seriatim.

Case I is a young lady aged 25, a stenographer and bookkeeper by occupation. Came under my care a year ago last March. Her brother had died of tuberculosis a few years before, but with that exception there was no family history of the disease. This brother believed he had contracted the disease from a fellow workman. She had always enjoyed good health until a few weeks before her first visit to my office. A persistent cough for three or four weeks brought her to see me. I could find no well marked lesion in the lung, but an examination of the sputum showed tubercle bacilli. The patient showed a constant slight rise of temperature of about a degree in the evening.

She had good digestion but an exceedingly poor appetite, an appetite which seemed hard to "whip into line." Although she had a cough for only about three weeks, she had been tired and languid and weary for about two or three months, but thought nothing of it. She was ordered to discontinue her work entirely until the temperature became normal, which result was accomplished within about two weeks. Through the kindness of her employer at that time she was permitted to get away to some friends in the country for a prolonged stay. There the appetite improved rapidly, and the patient commenced to put on flesh quickly under forced feeding. The treatment consisted in rest in the open air for practically the twenty-four hours out of twenty-four, except when weary of resting she was permitted to take very moderate exercise. As soon as weariness supervened she was ordered to rest again and to regulate her exercise entirely by her desires. At night time she slept indoors, but had half the window removed so that the air circulated freely and constantly over her bed. She was warned to fear foul air rather than drafts, and proved in this regard as well as in all others an admirable patient. The diet consisted of an ordinary nutritious mixed one, with the addition of raw eggs in the form of an egg oyster, to the extent of from 2 to 6 or 8 a day (depending on her ability to digest them), and as much fresh milk as could be taken, usually about a quart a day. After about two months in the country she returned to her work here in the city and has pursued it for now almost a year with hardly a day's remission. She has gained twenty-four pounds in six months. Her cough has almost entirely disappeared, but the sputum still retains a moderate number of the tubercle bacilli. Her general health is good and she is able to handle her work perfectly well.

A peculiar complication occurred in this case which is worth considering for a moment. This patient, as I stated before, was an admirable one, and followed out the directions for forced feeding to the letter. Several times she forced her feeding beyond her limitations and developed acute gastritis, with inability to take any food for a week or two. I had warned her to be careful in this regard, but on account of her large gain in weight, and her general well-feeling and well-being from that treatment, she persisted in a forced dietary several times after this, even when her appetite was practically nil. The result has been that only a month ago she developed a horribly nasty case of gastritis and has never been able



to take food with relish since. This has taken off about five of her twenty-four pounds gain and has discouraged the patient somewhat. It will, I think, however, be a useful lesson to her to teach her to moderate at times her forced diet. Despite this the general condition of the patient may be considered excellent.

Case II is a young unmarried man, 27, an expert accountant. He is a slight fellow, 5 feet 4½ inches high, and weighs 114 pounds, having lost 12 pounds in the last year. His family history is good and his previous health has been likewise good, except that during the past year he has suffered with a cough and with this loss of flesh mentioned above. He has been under the care during the past few months of a physician who is unfitted to care for patients. The patient's temperature was almost constantly about 100, pulse likewise 100, cough fairly constant, free mucopurulent expectoration, appetite poor, and coldness of all the extremities pronounced. Exploration of the chest disclosed a large area of infiltration over supra- and infra-clavicular regions of the left lung anteriorly. Tubercle bacilli were present in the sputum in large numbers. This patient was treated almost exactly as the first case recorded. He did badly, however, in the country, developed diarrhea, and felt that he was losing ground. He returned after a few weeks to the city and has not left it since. Although he lived upon a noisy car line, with the dust of the street constantly disturbed and blowing in upon him, he nevertheless spent most of his time upon his veranda or taking short walks around in the neighborhood until his temperature became normal, when he was permitted to take more exercise, and after the lapse of a couple of months to return to his work. He has worked steadily since last November, has maintained the weight which he gained during his months of rest, namely, 13 pounds, has a constantly normal temperature and feels generally in fairly good health. I cannot see that the lesion in the lung is markedly changed, although I believe it has somewhat lessened in area. He developed, February of this year, a rectal fistula, which has added to his troubles, but it does not seem to have depleted his general vitality. The patient feels himself to be a fairly well man.

Case III.—A young married woman aged 22, 5 feet 8 inches high, and 113 pounds in weight. Her family history is good and her own previous record is likewise good, except for an attack of neu-

rasthenia four years ago, which was relieved within a few months. The patient came under my observation following an attack of typhoid fever in her husband. She was ill while she was nursing her husband, and her husband's case being a somewhat complicated one, little attention was paid to her until after his recovery. Careful examination then disclosed that the cough and difficulty from which she suffered was due to a tubercular infection, the chest exploration disclosing infiltration of the upper lobe of the left lung in front, and sputum examination showing tubercle bacilli. She was treated almost exactly the same as the other two cases, and has done fairly well. She has gained 9 pounds in the six months she has been under treatment and has maintained this weight despite repeated attacks of indigestion and diarrhea. She is a somewhat hard patient to handle, inasmuch as she becomes morbid and melancholy upon the first appearance of any slight adverse symptoms, and has to be constantly stimulated by suggestion and buoyed by hope. She, however, expresses herself as feeling much stronger and better than when coming under treatment six months ago, enjoys a fairly good appetite, takes from 2 to 4 raw eggs daily in addition to her mixed diet, but balks entirely upon milk, being unable to drink any of it at all.

Case IV.—A young married woman of good family and excellent connections. She has one child aged 18 months, who has been under my observation for the past year, being a case of difficult feeding and a case representing a lot of care on the part of the mother. The lady herself has been a patient of several other physicians, and came under my care only last December. She is tall and slender, 5 feet 7 inches in height and weighing only 105 pounds. I found her suffering from a severe attack of neurasthenia, being morbid, melancholy, exhausted by the slightest effort, unable to eat, irritable and generally sick. These symptoms she believed were due to the fact that she had "gone the pace" of society during the previous year, indulging in many of the foibles and a few extravagances of the social life of a large city. In this I was inclined to agree with her. She complained likewise of a slight cough but attached little importance to it. I was suspicious of the cough, however, examined the sputum and found tubercle bacilli to be present. I likewise examined the chest carefully, but was unable to locate any point of infiltration in either lung. She was given the Weir-Mitchell rest cure for neurasthenia, a cure which, by the way, was

likewise admirable for her tuberculosis, consisting of rest, massage, fresh air, and forced feeding. Under this treatment she improved rapidly, all her neurasthenic symptoms left her within a month and within two months she was feeling very much herself again, being up and about the house, and participating occasionally in little social functions. A too great freedom in this regard, however, resulted in a nasty grippe attack which undid much of the good which we had accomplished, left her weak and debilitated, increased her irritability, and destroyed her appetite. It took me fully another month to get rid of these symptoms and put her back where she was before. This I must confess is not an altogether encouraging case. The patient is high-strung, fond of gaiety, socially ambitious and chafes under the necessary restraint of the cure. I have, however, discussed the whole situation frankly with her, and she has accepted it with a fair degree of equanimity, and has promised to aid us in the cure all she can. The combination, however, of severe neurasthenia with tubercular infiltration of the lung, is not altogether a happy one for either physician or patient.

Case V.—Was a young physician who has suffered with several attacks of pleurisy with effusion. All of these have been relieved without aspiration, but about two years ago he commenced to lose flesh and to cough a good deal. Sputum showed tubercle bacilli and exploration of the chest disclosed roughling over the upper borders of both lungs and thickening of the pleura of both lungs behind. About a year ago he consulted me with reference to his lungs, having in the interim been off for six months in the country in the fruit belt, living his entire time out in the fresh air and picking fruit partly for pastime and partly as a means of livelihood. By this method of treatment he gained considerable flesh and strength, and decreased to a large extent his cough. I have seen and advised him at intervals during the past year. He has been able to resume his practice in a small country town, to which he removed partly on his own account, and partly on account of a tubercular sister whose case will be cited shortly. It is not necessary to go into the case in detail; suffice it to say he has done enough practice to support himself, his sister and his sister's child, and has kept himself in fairly good condition. The lungs are still diseased, of course, but he is generally in fair health. During the inclemency of the past

winter he had several colds, which used him pretty roughly, but by cutting out night work, and rough driving, he has been able to keep himself in fairly good condition. The case is rather remarkable, inasmuch as the man has been able to preserve his own independence and support two others besides himself while suffering as he is.

Case VI.—Is the sister of the previous patient. The probability is that she acquired the disease from her brother. She is a widow of about 35 years, with one child aged six. This patient found it necessary to work to support herself, but when she came under my observation was so weak that work was out of the question. Both lungs were invaded at their apices, temperature was about 100 constantly, and patient was coughing a sputum containing tubercle bacilli in goodly numbers. She had been employed in a close factory, and found it necessary to take street cars early in the morning, when they were cold, insufficiently heated and wretchedly ventilated. The hygiene of her house was likewise not any too good, and all in all the general conditions were what might be termed bad. I advised very strongly her removal to the country. Her brother rose to the emergency, opened an office in a country town, adjoining Detroit, took his sister to keep house for him, supplementing my instructions for suitable hygiene by concrete example of right living, and has enabled her to so improve her physical condition that she is now perfectly able to attend to the household duties for herself, her brother and her daughter. She is not by any means cured, but is certainly vastly improved.

Case VII.—Was the sister of Case II. She came to see me not about any cough, but about a condition consisting of malaise, anorexia, pain in the lumbar region and general debility. I explored her lung and examined her sputum and found nothing wrong, but with the brother's case before my eyes, with the possibilities of contagion so evident, and with the general condition of debility so manifest, I concluded this to be a case falling into the pre-tubercular list. I could not, of course, diagnose anything tubercular in the case, but I was afraid of it, and felt that I owed it to her to put her in condition to fight off the germ if it obtained entrance to her system. I therefore proceeded by rest, by diet, by tonics and by systematic education in breathing, etc., to build her up. She responded beautifully and in a short time was in my estimation out of danger of any immediate infection. Possibly this patient would never have developed tuberculosis,

but I was not going to take any chances, and by putting her where she is, in a condition of vigorous womanly health, I feel that I have done for her the best that any man could do under the conditions existing.

Since writing the foregoing three weeks ago, five cases of tuberculosis associated with syphilis have come under my observation. I shall not discuss these at any length, but shall rest content with reminding you of the close association existing between these two diseases—a fact already noted by other observers.

I have considered only in my cases those who have been continuously under my care for the past year, as they alone were susceptible of careful study and analysis. The floating cases whom one sees twice or thrice, or only as a consultant, are not to be considered as possessing any value as cases for study, or as cases from which any conclusions whatsoever might be drawn. I have therefore not referred to this class at all.

As to the very pertinent question of medication in the cases under observation, I may answer it by saying that medicine was given an entirely subordinate part. That medicine has its place goes without saying, but that it should occupy the position of paramount importance which it did occupy some years ago, is, in the light of modern investigation and experience absurd.

In my cases creosote was given as a rule in one or two or three-drop doses, in milk and after meals, as a tonic and intestinal antiseptic. It was never given with the idea that it had any great healing power over the diseased lung tissue, although through its excretion by way of the respiratory tract, some antiseptic power even there may be evolved. Small doses of quinine when necessary, for their stimulating power upon leucocytosis, and for their powerfully tonic action on appetite and digestion, was frequently a recourse whenever conditions seemed to warrant.

Constant care of the digestion, and excretion through the intestinal tract, was inculcated upon all of the patients. With forced feeding of any case, free bowel action is a *sine qua non*, otherwise the effects of stagnation in the whole digestive tract become in a very short time the predominating symptom in the clinical picture.

Serum or vaccine treatment was considered only to be dismissed, inasmuch as it has no practical basis upon which to found a therapy. The opsonins may, and doubtless do, contain potentialities, but they have in no wise been reduced to a practical concrete form for the treatment of tuberculosis.

Summary—1. All cases under observation have received little treatment except rest, fresh air and forced feeding.

2. Internal medication has been used wherever necessary, usually to meet symptoms and to cure any aberration from the normal plane of health, at the earliest possible moment.

3. All cases have been relieved of the evening rise of temperature.

4. All have gained in flesh, the maximum gain being twenty-four pounds, and the minimum five.

5. All patients have been able to resume their ordinary avocations, and have been able to support themselves, and in some cases aid in supporting others.

6. The lung lesions have shown no striking improvement on physical exploration but the general sense of well-being in all cases has been marked.

7. All these patients understand the condition of their lungs perfectly, all are hopeful of a cure, and all are filled with the belief that they will be cured, a belief, which I, by the way, have carefully fostered.

8. All of these patients, understanding the conditions of the lungs and being



educated for the care of their sputum and excretions generally, are centers for a dissemination of knowledge of this white plague.

9. Only by a widespread dissemination of this knowledge can we ever hope to stamp out the scourge. And only by

careful instruction of our patients can we hope to eliminate them as potent factors for evil through the medium of their sputum.

10. None of these cases has been cured in the year, but all have been improved.

### DISCUSSION.

**W. H. Haughey**, Battle Creek.—Mrs. S—, born in Ireland, came with her older sister to America when sixteen years of age, as a steerage passenger, or emigrant, worked as a domestic, sent money home for other members of the family to come until the entire family of father, mother and nine children were here. She was married at twenty-three years of age to a healthy Irish laborer. Her obstetrical record is as follows: May 25, 1890—twins, males at eight months, difficult labor 19 hours, forceps applied to both heads under anesthesia, both living. Oct. 15, 1891—male, normal, 18 hours, head, living, perineum ruptured, immediately repaired, but not good union. Nov. 19, 1892—male, normal, 4 hours, living, perineum and cervix ruptured, perineum repaired, but not good union. Jan. 3, 1894—female, foot, 1½ hours, postpartum hemorrhage, child dead. Nov. 29, 1895—male, normal, head, 12 hours, living. Nov. 14, 1897—male, normal, normal, head, 8 hours, living.

After this last delivery she made a slow recovery, developed catarrhal pneumonia, which continued with septic conditions for several months, but eventually cleared up. During the summer of 1898 she told me that she believed herself again pregnant. Examination revealed nothing, but she was unconvinced, and still believed herself pregnant. I examined her at different intervals, always with negative results. At five months she declared she felt life, and continued to feel it through to term. During the complete nine months menstruation was incomplete and scanty, with intervals of two or three months of complete cessation. So positive was she of her condition being one of pregnancy that at the expiration of the term by her count, she made full preparations, went to bed, and sent for me to come and deliver her. It was only after two or three days had elapsed that she could be convinced that she was not pregnant, but as soon as she became so convinced all symptoms disappeared, menstruation became regular, although scanty and pale.

She took on a little flesh, developed a cough, with expectoration and in 1900 we found the tubercle bacillus in the sputum. For a period of three months the germ was present, then we failed to find it. In a short time she again announced herself pregnant. She gave every symptom except enlargement:—stomach troubles, cessation of menstruation which was this time almost complete, quickening, neuralgia, and other nervous symptoms. Again repeated examinations failed to convince her of her mistake, and it was only after the expiration of the term, and she had again made elaborate preparations for confinement, called me to attend her, and no pains supervened, that she became gradually convinced.

Her cough and expectoration soon returned, and in 1902 we again found the tubercle germ in the sputum, which remained for months, and again disappeared. By this time both herself and friends accepted the diagnosis of tuberculosis, and she passed from my care to that of advertising charlatans, and I saw her only at intervals until the summer of 1906, when she returned to me in bad condition. Cough and expectoration had greatly increased, pulse rapid, respiration accelerated, hectic, temperature 97° to 99°, appetite capricious. The tubercle bacillus was again present, and continued until about Christmas time, since when we have been unable to find it.

The financial condition of this family precluded any elaborate or expensive line of treatment. I decided, however, that fresh air is free if we will only let it into our houses. Theirs is a small six-room cottage of the ordinary upright and leanto variety, with the end of the upright facing the street, and completely exposed on three sides. I therefore placed the patient in this front room and opened all outside doors and windows, closing those opening into other parts of the house. In this room, opened as above stated, she has spent most of her nights, and except when she has been able to be out, days as well, since her last confinement in 1897, until last September, at

which time she again developed the tubercle germ in greater quantities than ever before. Also there was more depression and greater emaciation, and added to her discomforts, was increased discharge from her old laceration, and large and troublesome hemorrhoids. Her condition was such as to greatly discourage any operative efforts. She was, however, removed to Nichols Hospital. This building has on the second floor a porch enclosed on three sides and open to the street on the fourth, which faces the east. I caused a bed to be put out there and assigned to her use. She has remained on the porch, either in bed or in a chair when able, since that time, with no other means of warmth than hot water bags and bottles in the bed when necessary. She is taken inside about three or four times weekly for her baths, and even during the cold weather she requires all windows open when taking her bath. She has not taken cold even once, temperature has ranged from 95° to 99.8°, but most of the time has been 97° to 98°; pulse variable from 72 to 106 the extremes, but much of the time between 80 and 95. The extremes of respiration have been 20 to 30, averaging 24 to 26. Except during the extremely cold weather she has not been troubled unduly with cough, but even zero weather, or weather 5° or 6° above zero caused increased coughing, and those days when the temperature was below zero her cough was more pronounced and constant, with a thin, watery, slightly mucoid expectoration, in which we have not found the tubercle germ, although repeated search has been made.

The extreme cold interfered somewhat with alimentation, as no attendant could remain on that porch long enough to feed her, therefore she had to feed herself. The coughing paroxysms so delayed the meal that the food would get very cold, and be sometimes nearly frozen before she finished. Her appetite has been in the main good, with occasional days when it was poor. The hemorrhoids have long since disappeared, vaginal discharge almost disappeared, and menstruation, which had been absent for more than a year, returned in January.

March 25, Dr. A. W. Nelson, bacteriologist at Battle Creek Sanitarium, kindly determined her opsonic index to be .69. This seemed good and I determined to administer Koch's New Tuberculin. Beginning with 2-10 cubic millimeter (1-7.00 mgm. solids) in a .5% carbolic acid solution, I have gradually increased it until now I am giving 12½ cubic millimeters (1-40 mgm. solids) daily. At no time has any reaction occurred, nor has any untoward symptom presented itself. She has increased in strength, appetite and spirits. The hospital is not provided with scales for weighing, therefore increase in weight has not been noted, but an appreciable improvement is noticed by all. She sits up, walks a little, and has gained much strength.

On May 8, Dr. Nelson again made her opsonic determination and we find that in the six weeks, under the tuberculin treatment, her index has increased to 1.4, this being a gain of 103% over her first test.

#### Treatment of Hemorrhage in Typhoid.—

"Small hemorrhages and those early in the disease rarely require any special treatment. In the more severe cases the first essential is absolute quiet, generally best secured by a hypodermic dose of morphia, one-sixth of a grain usually being enough. The diet should be reduced to albumin water or all food may be discontinued, and it is better to stop stimulants, if they are being given. A light ice bag should be applied to the abdomen. The giving of drugs is of doubtful value. Ergot is probably more harmful than helpful. Adrenalin has been given by mouth and rectum. Styptics by mouth are of little value. The most difficult question is as to the advisability of giving opium. Its use is sanctioned by long custom, but to what extent bleeding is lessened by its administration is a question not easy to answer. By giving opium we favor dis-

tention which in itself is a serious condition. Perforation frequently occurs with hemorrhage, and if opium has been given there is practically no chance of recognizing it before the onset of general peritonitis. As a rule the patients with hemorrhage seem to do better without opium."

"Calcium salts may be given as a prophylactic measure, the coagulation time of the blood being taken in every patient, and if it has prolonged, calcium lactate in doses of 10 grains is given three times a day. It is always well to give it, if hemorrhage has taken place. Gelatin injections are of no more value than the calcium salts and are very disturbing to the patient."

Saline infusions should not be given, unless the patient is in collapse. There need be no alarm about low blood pressure.

It is advantageous to have constipation after hemorrhage.—McCRAE, *Osler's Modern Medicine*.

## DIET IN TUBERCULOSIS\*

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J. A. JOHNSON, M. D.,Greenville.

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The importance of proper diet in tuberculosis has been dwelt upon since the time of Hippocrates. Aretæus mentions the use of milk in the treatment of phthisical patients. Quotations pregnant with facts relating to the value of proper food might be added from almost every medical writer of prominence. Osler sums up the matter as follows: "As a healing of a tubercular process is largely dependent upon the state of nutrition, the question of diet becomes of the very first importance."

In a disease with such protean manifestations there are many points that must be considered. As the malady usually attacks the lungs, this paper will deal principally with pulmonary tuberculosis, for if the dietetic management of a case of pulmonary phthisis is understood thoroughly, there will be no difficulty in modifying it to meet the requirements of other forms of the disease.

The nutrition of the patient is a reliable guide as to the progress of the disease. If he is taking sufficient nutritious food, is digesting it, and is gaining in weight, the prognosis is good. If the reverse is the case, the prognosis is bad. A persistent inability to digest food is always an unfavorable symptom. Care should be taken to avoid disturbing the stomach by the use of nauseating drugs. Patients are too frequently dosed excessively with creosote, cod-liver oil, cough mixtures and hypophosphates, while milk and eggs are not given often enough or only in insufficient quantities.

Irritability of the stomach should receive early and the most careful consideration. It is usually due to fever, anemia, the swallowing of sputum or improper food or drugs. If due to fever, care in selecting the diet, as will be described hereafter, should be exercised. When there is marked anemia, fresh air, sunshine, good food, massage, and iron in an easily assimilable form, are helpful. In all cases the patient should be instructed not to swallow the sputum, as irritability of the stomach with vomiting is almost certain to follow sooner or later. He should be questioned closely regarding the food and drugs he is taking. One should be certain that he is not taking a patent medicine in addition to what has been prescribed for him. "Quick cures" are always attractive, and are often indulged in secretly, to the great detriment of the patient. A suspension of all drugs from time to time will do much to relieve the overdosed stomach. In some individuals irritability and nausea may be brought on by the too continuous administration of any one drug.

The appetite, since it is generally poor and capricious, is not a good guide as to the amount of food to be taken. In most cases more food can be digested than the appetite demands. While this is so, the desires of the patient should, nevertheless, be consulted so far as possible, and more good can be accomplished by humoring the patient's reasonable demands than by combatting them. The character of each patient should be studied, and in this condition particularly tact

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\*Read before the Montcalm County Medical Society, July, 1907.



plays an important part. A nurse or a physician with natural tact and sympathy will often manage to get sufficient food into an intractable or capricious patient where skill without tact would fail completely.

Other factors to be considered are the nationality and usual mode of life of the patient. Many diet-lists intended for tubercular patients are taken from works of German writers. A German or German-American might thrive upon these, whereas an Englishman, a Frenchman, or American, would find it difficult to take some of the articles advised.

In the choice and preparation of food the utmost care should be exercised. Detweiler's saying, "My kitchen is my pharmacy," holds in these cases. The food should be prepared simply, and yet should be varied and made as tempting as possible. The stomach and intestines should be watched, and constipation promptly relieved. Patients who are taking large quantities of food and resting much of the time are apt to be costive. Sugars and starches are rarely well borne. This may be due to the presence of catarrhal conditions of the bowels, but may also be true even when catarrh is not present. Young, growing girls often crave sweets, and when this craving is indulged in to excess, the stomach and digestion becomes disordered. While sufficient food should be given, an excess is injurious, and each patient should be watched carefully. Not more should be given at one time than the patient can digest with ease.

Rest is important, and the patient should be instructed to rest before and after meals, if he is not receiving the combined rest and diet cure, he should lie down at least half an hour before and after meals.

Coughing is sometimes excited by the taking of food. If this is due to laryngeal involvement, it should be managed according to directions given in treat-

ment of diseases of the larynx. When due to the pressure of an over-filled stomach, the meals may be smaller and closer together. Gavage or feeding by means of a soft rubber tube may be employed in those cases that vomit everything they eat because swallowing brings on spasmodic cough.

The care of the mouth is of great importance. It is well to rinse the mouth before and after eating with some one of the popular mouth washes, as listerine, Dobell's solution, etc. The teeth also should be kept scrupulously clean.

Milk is one of the most important articles of diet for the tubercular patient. Unless some special reason exists, milk should always form a part of the diet. It may be taken with the meals or be given between the intervals of feeding. It is of the utmost importance that the milk be sipped slowly, and not swallowed quickly in large quantities. The milk may be taken plain, or may be modified in various ways. Lime water may be added, with or without the addition of cream. Carbonated water may be mixed with it, or the milk may be peptonized. Buttermilk or kumiss may be taken if desired.

Eggs, when they can be taken in sufficient quantities, are also of the greatest value. In certain cases, however, they may not be well borne. If the entire egg can not be taken, the whites may be given alone. Egg-albumin often renders most efficient service in helping to nourish these patients. The white of from six to twenty-four eggs beaten up lightly and strained through a cloth may be taken daily. A very small pinch of salt and a little lemon-juice or other flavoring substance may be added. Given in this way, a large number of eggs can easily be taken, and are almost invariably well borne. If the patient can digest the eggs entire, they may be very lightly boiled, or as a change they may be made into a light omelet or poached. Hard

boiled and fried should not be eaten.

Meat of all kinds, if properly prepared, may be taken; but "high game," highly seasoned dishes, and twice cooked meats should be avoided. Beef and mutton are the most suitable varieties. Raw meats, especially raw beef, have been highly extolled by French writers. The experimental work of Richet and Hericourt on dogs, tending to show the value of raw meat, has been much criticised. Cornil and Chantemesse recently contributed to the subject by their experiments on dogs. Placed under similar conditions, some of the animals were fed on raw meat and others on cooked, and both series were inoculated with virulent tubercle bacilli. The dogs fed on cooked meat all died in a short time of tuberculosis, while those fed on raw meat lived. Some of the animals, at the time when in apparent good health, were killed and showed tuberculous deposits. Others lived in apparent good health, and on being killed a year later showed tuberculous deposits in a condition of healing.

Grancher suggests that for tuberculous patients the raw meat be given in the form of a finely divided pulp. This is prepared by scraping the meat with a knife, which will result in a mass of shredded meat fiber. This is placed in a mortar and pounded and rubbed with a pestle until quite smooth. It is then pressed gently through a sieve to remove any large particles. This raw meat pulp is very easily digested and highly nutritious. It may be given in various ways, as spread on sandwiches or given in milk or in warm bullion. It may be mixed with vegetables or in the case of children with small quantities of preserves. It may be rolled in balls and so easily swallowed, or it may be served with egg, with anchovies, or with pickled herring.

Meat juice is also of great value. This may be prepared according to any of the usual recipes, or the juice may be ex-

pressed from beef by means of a meat press. Good round steak should be very slightly broiled, cut into cubes, and the juice pressed out. With a good press about eight ounces of juice can be extracted from a pound of meat. This should be seasoned and heated by placing the vessel containing it in warm water. Care should be taken not to heat it too thoroughly, or the albumen will coagulate and the juice be spoiled. Freshly prepared beef juice is always preferable, but when this cannot be obtained, liquid beef peptonoids, predigested beef, or Masquera Beef Meal may be employed. For patients who cannot or will not take raw beef, very rare steak, roast beef, or beef soup should be prescribed.

Fresh fish, boiled, broiled, or baked, may be allowed. Both oysters and clams from which the hard portion has been removed, may be eaten, preferably raw, but they may also be given stewed, roasted, or broiled.

Where cereals can be digested they are of value. In the early stages of the disease they serve not only as nutriment, but also aid in regulating the bowels, and are usually easily digested. If there is constipation, they are of special value. Oatmeal, wheaten grits, corn meal mush, and rice and milk are the most suitable forms.

Any of the easily digestible vegetables may be allowed. They should be steamed or cooked with as little water as possible, to avoid dissolving out the salts, which together with much of the nutriment, are thrown away with the water.

Wheat or rye bread, or mixture of both, may be used. Zwieback is of great value. All hot bread, pastry, and cakes should be avoided.

All fresh and preferably ripe fruit may be allowed in moderation. It should be taken the first thing in the morning or as a dessert. Baked apples and oranges are well borne and useful, and grapes,

peaches, pears and other fruit in season may be allowed.

In tuberculosis, when fats and oils can be taken and absorbed, the prognosis is always much better than when these can not be tolerated. While they are of the greatest value in treatment, care should be taken not to disturb the patient's digestion by forcing more fatty foods into the dietary than the stomach will tolerate. Most patients, however, soon acquire a dislike for fats of all kinds. They are best given in the form of cream and butter; the yolks of eggs, crisp fat bacon, and olive oil are useful. Codliver oil is really as much a food as a medicine. Either the plain oil or an emulsion may be used, and the doses should be small to begin with and gradually be increased. A common mistake is to administer the oil in excessive quantities. Only perfectly sweet fresh oil is to be used, as rancid or stale oil may disturb the digestion. Its use should be discontinued from time to time. Children bear oil better than do adults. If there is a tendency to diarrhea, fats and oils must be used with caution.

There is much diversity of opinion concerning the influence of alcohol in tuberculosis; three views have been expressed, and each has its supporters:

First: That alcoholism is antagonistic to tuberculosis.

Second: That alcoholism exerts no special influence on the individual as regards tuberculosis.

Third: That alcoholism definitely predisposes to tuberculosis.

The last view has the largest number of supporters, as alcoholism probably renders the body more susceptible to all infections. Osler has stated his opinion as follows: "It was formerly thought that alcohol was in some way antagonistic to tuberculous disease, but observations of late years indicate clearly that

the reverse is the case, and that chronic drinkers are much more liable to both acute and pulmonary tuberculosis. It is probably altogether a question of altered tissue soil, the alcohol lowering the vitality and enabling the bacilli more readily to develop and grow."

Concerning the use of alcohol in the treatment of tuberculosis, it may be said that, except in the last stages of the disease, it is best avoided. Nationality and habits, however, must not be disregarded. To those habituated to the use of a glass of wine or beer with the dinner, this may be allowed. The quantity taken must be limited to the smallest reasonable allowance. This will vary with each individual.

Patients who are gaining weight or who are in good condition are better off without alcohol. Those who are going down hill may often take light wine, beer, or well-diluted spirits with advantage. If the last, well matured pure whiskey is the best.

Patients with high fever who are in an exhausted condition may be given alcohol freely, following the same rules as were laid down in the general considerations of fever. In these cases alcohol is given as a food, and is, as a rule, very well borne. In these advanced cases pure whiskey well diluted is perhaps the best form of alcoholic stimulant, but the patient's taste may be consulted in this respect.

The usual beverages may be given in moderation. In chronic tuberculosis co-coas may be taken night and morning with good effect. Tea and coffee may be allowed in small quantities unless they produce unfavorable symptoms. Milk and milk punch, buttermilk, lemonade, orangeade may be used, and malt extracts are often of benefit.

Food may be given from three to six times a day. On rising, milk may be taken, or if desired, a cup of boullion instead. This may be followed by break-



fast, and about the middle of morning a glass of milk, egg albumin, beef juice, or broth may be given with a cracker or a piece of toast.

A midday dinner should be the rule, and during the middle of the afternoon a light lunch of scraped beef, milk, or some similar food may be given.

Supper may be taken at a convenient evening hour, and before going to bed a glass of milk may be drunk. If desired, or if deemed necessary, a small amount of liquid nourishment may be taken during the night if the patient awakens. As a rule, however, it is well to give the stomach a full night's rest. In severe cases, where only small quantities of liquid or semi-solid food are taken, the intervals should be shortened to every two or three hours.

In advanced cases patients may generally be permitted to select their diet. These cases can often eat hearty meals with relish and apparently digest them without difficulty. As a rule, their diet must be light, liquid or semi-solid. The same principles may be applied here as in feeding fever cases, with the exception that the patient's desires should, as far as possible, be gratified.

Various diet cures have been advo-

cated for the relief of phthisis. The benefit which follows their use is due largely to the fresh air, and abundance of food they prescribe. I will not take the time to outline the diet used in these cures.

Débove discovered accidentally that food introduced by means of a stomach tube was retained, where, if taken by the mouth, it would be rejected. He therefore turned his attention to the treatment of tubercular patients by means of this method, and met with a measurable success. This form of treatment is especially applicable in those cases where there is an irritable stomach and no appetite.

Food is introduced into the stomach by the tube at regular intervals. Milk, peptonized or diluted, ground meat mixtures, eggs and milk, albumen water, beef juice, predigested beef preparations, and similar liquid foods may be utilized for this purpose. Gastric catarrh and fever are contraindications to forced feeding.

In conclusion, it is well to reiterate that proper diet is of the utmost importance in the treatment of all forms of tuberculosis, and that it is our best weapon to successfully antagonize the rapid advance of the disease.

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**The Invention of the Stethoscope.**—Laennec (1781-1826), the celebrated French pathologist, was the inventor of the stethoscope. His discovery, which was accidental, is thus described by him: "In 1816 I was consulted by a young woman laboring under the general symptoms of a diseased heart, and in whose case percussion and the application of the hand were of little avail, on account of the great degree of fatness. I happened to recollect a simple and well-known fact in acoustics, and fancied it might be turned to some use on the present occasion. The fact I allude to is the great distinctness with which we hear the scratch of a pin at one end of a piece of wood, on applying our ear to the other. Immediately, on this suggestion, I rolled a quire

of paper into a kind of cylinder, and applied one end of it to the region of the heart and the other to my ear, and was not a little surprised and pleased to find that I could thereby perceive the action of the heart in a manner much more clear and distinct than I had ever been able to do by the immediate application of the ear."—Laennec—*Diseases of Chest*.

Remember that, if you cannot detect a supposed vesico-vaginal fistula, a little boiled milk and water injected into the bladder will, by the aid of a speculum, be seen to escape through the opening.

Never use fly blisters on a patient who may be suffering from any kidney affection.

## TUBERCULOSIS FROM A SURGICAL STANDPOINT\*

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D. K. BLACK, M. D.,  
Greenville.

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In this particular part of the subject under discussion, I have not aimed to write an academic paper, or to discuss any new theories, believing that in such a society as ours, more benefit will accrue to the members from a discussion of the cases we commonly meet with, than from a rehash of the many fine-spun theories we constantly see in some medical journals; and in consequence of this I have not attempted to write anything about cases with which I have had no personal experience. Thus there will be many lines of surgical treatment of tuberculosis which I shall not touch upon.

In considering the subject of tuberculosis from a surgical standpoint, it should be borne in mind that no portion of the human body is exempt from this disease, and while surgery plays no unimportant part, it is necessarily subordinated to, and an adjunct of, the lines of treatment so successfully carried out in many of the recently built sanatoria and retreats for the treatment of the white plague, as well as in private practice. There are, however, some few conditions which call for surgical treatment, and these I shall briefly refer to in this paper.

It is a difficult matter to take a case of tuberculosis in any part of the human anatomy and say "This case is distinctly in the realm of surgery," for the surgeon's services are not in demand until the disease process has reached the stage of dissemination, and usually not until

there has ensued distinct destruction of tissue.

From a surgical standpoint the most frequent seat of tuberculosis is the joint structures, and by far the greater majority of such cases will be found among children under fifteen years of age. Tubercular arthritis involves all the structures of the articulation, bone, cartilage, ligaments, synovial membranes, etc. The opinion which has prevailed, namely, that almost all lesions of the joints were caused by traumatism (injuries of some sort) has been proved by the accumulated experience of many accurate and conscientious surgeons to be unscientific and without foundation in fact. That form of inflammation which leads to arthritis begins in an interference with the normal nutrition of the parts.

The primary lesion either is the rupture of capillary vessels, or tubercular deposits in or near the articular surfaces. It is absolutely known that in growing bones, rupture of a capillary vessel with extravasation of blood is very common, even in healthy children. It must be still more frequent in those children suffering from any dyscrasia, which not only renders the capillary walls less strong, but lessens the reparative power of the tissues involved.

Tubercular arthritis may originate in the deposit of the tubercle bacillus directly in the synovial membrane, or indirectly, by invasion from foci of this disease, in or near the epiphysis contiguous to the joint. Though not uncommon in adult life, it is very much

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\*Read before the Montcalm County Medical Society, July, 1907.

more frequent in children. There is also a very marked difference between arthritis caused by injury, and arthritis caused by infection of tuberculosis.

In traumatic arthritis the pain is always acute, and is the symptom for which the physician is usually called. In arthritis of tubercular origin, however, pain is rarely acute, often absent, and when present is usually intermittent or mild in character.

Again, in tubercular arthritis, the function of the joint is not materially interfered with, until the disease has so far progressed that destruction of tissue has commenced.

Because of the frequency of its occurrence and the seriousness of its results, and because the treatment is more distinctly surgical, I shall attempt to discuss briefly arthritis of the hip joint, or morbus coxarius. As you well know, it is a formidable disease; one which will often baffle the best medical and surgical care, through weeks, months and years of suffering, ending only too often in destruction of the joint and frequently in death. Again I wish to state that it is essentially a disease of childhood, occurring chiefly during the period of rapid growth. I assume that everyone present is familiar with the symptoms of hip joint disease, so that the pathology and etiology will not be touched upon in this paper. I desire to emphasize, however, the importance of careful differential diagnosis in all hip joint troubles. This was very forcibly impressed on the writer some months ago in the case of a young man, now deceased, who was treated for eighteen long months for rheumatism, then for five or six months by an osteopath, also for rheumatism. In one of their lucid intervals the family called in the president of this society, who correctly diagnosed hip joint disease, made the necessary operation, evacuated a quart of pus, established drainage, and gave the young man's family

their first correct information regarding his disease. The case subsequently came under my professional care. Examination showed tubercle bacilli present. There was much destruction of bone, joint utterly destroyed, shaft of femur honeycombed, and osteitis had extended to large portion of os-innominatum. I sent the patient to Detroit where he was operated on by Dr. T. A. McGraw. He remained in the hospital about four months, and was fitted with an ambulatory splint before his return. After operation the suppuration steadily grew less, until all sinuses finally closed. After a few weeks suppuration commenced again, fever, diarrhea, cough supervened; general tuberculosis closed the story.

Now here was one of the cases where an early correct diagnosis would almost certainly have resulted in a cure, with probably an ankylosed hip joint.

When a patient consults you regarding pains in the hip or knee joint, don't listen as if you were much interested, and then tell him or her that it is a case of rheumatism, neuralgia or bursitis, but set your mind on the possibility of it being hip joint disease, and make the necessary examination to determine whether or not such is the case.

Now if the patient is a child, from three to fifteen years of age, gives a history of slight or intermittent pains in knee or hip joint, which is most marked in the night-time or early forenoon, and disappears after child moves around a while, then get to thinking about tubercular arthritis.

The treatment of tubercular arthritis is mechanical and constitutional, up to a certain point only. After that point is reached, surgical interference is the only available method. After fixation of the muscles and joint with splints, plaster of paris jackets, extension and counter extension, and the various ingenious appliances invented for relief in such cases, there remains a certain percentage of



patients who do not improve, who on the contrary grow steadily worse. Operation is necessary to relieve pain on account of suppuration and the retention of pus, to prevent sepsis from insufficient drainage, to arrest osteitis in the head and neck of the femur, and in the acetabulum. When pain is so severe that fixation of the joint with extension will not relieve it, it is safe to conclude that suppuration has occurred to such an extent that incision is necessary. It is by far the better plan to open freely into the joint, remove all diseased bone, even to an exsection of the hip joint if necessary, than to allow the disease products to make their escape through the small tortuous sinus, which nature provides in her efforts, to get rid of useless material. The operation removes at once all diseased tissue, and leaves a free and open wound for drainage, which should be packed with gauze and treated by the open method.

Tubercular arthritis in any other joint, when it reaches the surgical stage, should be treated by free incision and drainage. The best result that can be hoped for is ankylosis of the diseased joint.

I have dwelt upon hip joint disease simply because in my experience, extending over nearly twenty-five years, I have repeatedly found cases of this disease, tubercular in character, which resulted fatally and which I am convinced might have been saved had a correct diagnosis been made early. I do not consider that any physician would be excusable in making a wrong diagnosis of these cases, throughout many months, as was done in the case noted above.

An entirely different manifestation of tuberculosis, with which we are all familiar, and for which the treatment is distinctly surgical, is tubercular lymphoma of the cervical glands. If these cases appear for treatment before suppuration occurs, the necessary operation is

very simple and easily performed. Using antiseptic precautions, simply make the necessary incision, remove the diseased glands and close the wound. Healing will follow without incident, and the resulting scar on the neck will be scarcely noticeable. If, however, the patient postpones operation until suppuration has occurred in the gland or glands, you have a different proposition on your hands, for while the removal of the gland is easily done, the healing process is very slow, and the resulting scar is large, prominent, red and unsightly, and if your patient happens to be a female you will have that horrible scar thrown in your face so long as you stay in the neighborhood. She will also advise all her friends never to let doctor so and so do any surgical work on account of his lack of skill, always exhibiting her disfiguring scar, as proof of your incapacity as a surgeon.

This has been my experience in three different cases and I imagine most of the members present could recall similar instances and relate just such a tale. The moral is, that we should insist on the removal of tuberculous glands of the neck before suppuration occurs, and thus avoid the unsightly scars.

I have seen one case of tuberculosis of the mammary gland. The nodules were disseminated generally throughout the gland, and were hard to the touch. This patient had tuberculosis of the lungs, so nothing was done in a surgical way. I have read of cases of primary tuberculosis in the breast, where the gland was removed and a cure effected.

Another organ which seems a favorite place for the development of tuberculosis, and for which recourse is had to surgery, is the testis. The diagnosis is not difficult. In simple orchitis or epididymitis the pain is extreme and pressure unbearable. In tuberculosis of the testis, while the swelling may be quite marked, the pain is very slight,

and may be absent entirely. The patient will come to consult you because he feels numerous hard lumps or nodules, small but distinct in his testicles. On examination you will also find the cord hard and its surface uneven and nodular.

The prognosis of tubercular disease of these organs is so grave that when an early diagnosis can be certainly made, the diseased tissue should be removed. If only one side is involved and the other organ is fully developed, there should be no hesitation in advising castration. When both organs are involved there is very little use in doing anything along surgical lines, as the tuberculosis is probably a secondary infection. At all events there seems a deep rooted objection on the part of most men to the operation of castration, even when such operation is absolutely necessary and clearly indicated. Possibly in the discussion some of the members can explain the reason for the unpopularity of this particular operation.

Lupoid or tubercular ulcers, which formerly were treated by surgical means, are now more successfully treated by electricity, X-ray and high frequency coils.

Another manifestation of tuberculosis which sometimes requires the aid of the surgeon, is tuberculous ostitis of the vertebrae, commonly known as Pott's disease. This disease, like tubercular arthritis of the hip joint is essentially a disease of childhood, the great majority of cases occurring among children. The treatment is almost entirely mechanical and constitutional, but frequently (as in psoas abscess) the surgeon is called on to establish free drainage or to clean out the waste products of the disease.

Tubercular ostitis is frequently encountered. The bones of the fingers, hands, arms, legs, in fact any part of the bony structures may be the seat of this trouble. The surgical treatment in such cases differs in no way from that outlined. Establish drainage, remove diseased tissue. Early diagnosis spells success in the treatment of tuberculosis, and whether the treatment indicated be medical, orthopedic, constitutional or surgical, or all combined, one fact is absolutely proven, and that is, that the doctor who makes the earliest diagnosis in the disease, is the doctor who does the greatest good to the tuberculous patient.

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That perennial question, the ownership of the prescription, is being agitated in some of the German newspapers, owing to the publication of a legal opinion in which it was declared that the prescription was the property of the physician, the patient having only temporary rights in it and the apothecary none at all. If, however, the patient at the time of receiving the prescription from the physician stipulates for the right to own it, then it becomes his property; but this property right does not carry with it the privilege of selling the prescription to another or of incorporating it in a book of formulas. We think that the practice, so universally observed in English-speaking countries, of the apothecary retaining the original prescription and furnishing a copy to the patient, if

asked for, is the best one. In the case of a controversy arising as to the correctness of the apothecary's work in putting up the prescription, his ability to produce the original and prove his case by it might be an important factor. A case to decide the ownership of the prescription has never been taken to the State courts of last resort in this country, and in the absence of decisions of this kind pharmacists would do well to insist on retaining the original prescription and furnish a copy only when demanded. Explicit orders of the physician should, however, be obeyed. If the apothecary is instructed to return the prescription to the patient, then all he has to do is to make an exact copy of it and file it for reference.—*American Druggist.*



CASE REPORTS. 1. OTO-ANTRITIS IN A CHILD 3 MONTHS OLD. 2. TYMPANO-MASTOIDITIS IN A WOMAN 7 MONTHS PREGNANT. 3. CEREBELLAR ABSCESS IN A CHILD 4 YEARS OLD.

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EMIL AMBERG, M. D.,  
Detroit.

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The following three cases are reported only very briefly with the intention mainly of placing them on record, and not with the purpose of giving an exhaustive detailed description of them.

**1. Oto-antritis in a child 3 months old.**—Boy baby, L. D., born October 13, 1906, was brought to my office January 16, 1907. The mother reports as follows: The boy became peevish when about six weeks old. When about two months old the auricle was protruding forward, and when  $2\frac{1}{2}$  months old the whole left side of the head was swollen.

When I saw the patient, on January 17th, the whole left side of the head presented an immense cone-shaped swelling with the forward bent auricle resting on the top of it. His twin sister appeared to be much healthier and larger.

In Grace Hospital, on January 17th, I made a short incision behind the auricle under chloroform narcosis, and a considerable amount of pus was evacuated. The general condition of the child changed immediately for the better. A few days later I made a second short incision, higher than the first incision, in my office, without narcosis, and at different times I curetted the antrum slightly. A slight discharge from the lower wound, amounting to not more than a few drops in a few days, appeared and continued for some time. The infant was seen in my office every other day until February 11th, then at greater

intervals. On March 13th, 1907, the wound, according to the report of the mother, had entirely healed and the canal was entirely dry.

I desisted from a large opening and from an extensive operation, because I took into consideration that the child was looking rather miserable. It was brought up on mother's milk and condensed milk alternately (on account of the lack of sufficient supply of mother's milk for the twins). I thought it might not have been in position to lose a great amount of blood. Furthermore, I paid special attention to the nourishment of the child inasmuch as I allowed feeding until a comparatively short time before the operation and permitted feeding again soon after the operation, about three hours in each instance, in order that the infant should not lose too much of its vitality.

**2. Tympano-mastoiditis in a woman seven months pregnant.** The patient, Mrs. C. F. R., 28 years old, said in part: "The first trouble I had with my ear was in October, 1906, when I was taken with pains in my head in shape of severe headache, and a discharge from my ear. I had my ear washed out by a doctor three times, and there was not any more discharge from my ear at that time. But I had bad headache, all during the winter, and wanted to sleep all of the time, and I also was pregnant, and was ill with my head most of the winter, but I did not give up and go to my bed until I was taken ill on May 6,



1906, with a severe pain in my head and a bad discharge from my ear. The pain seemed to become more severe each day. I was taken to Harper Hospital for an operation. The doctor operated the morning of May 24, 1906."

On May 24th I performed a mastoid operation, confining myself to opening the antrum and some cells, as I was afraid to keep the patient under an anesthetic long on account of her pregnancy. On account of severe symptoms and high temperature I removed, on May 28th, practically the whole mastoid process. The extent of the operation may be imagined from the fact that only the twitching of the facial nerve forbade us to go further towards the median line. In all directions the wound cavity extended correspondingly.

Patient made an uneventful recovery and gave birth to a healthy child weighing seven pounds and thirteen ounces, at full term, on July 28th. On April 25th the child was nine months old and weighed 22½ pounds. The mother could nurse the child for only one month. During her disease, the patient suffered for a while considerably from her eyes, having for a time double vision. I could not detect any evidence of intracranial affection as cause for the same.

**3. Cerebellar abscess in a child 4 years old.**—Girl, N. McK., four years old, was brought to me on the 3rd of September, 1906, with the history that she had been very sick for some time, the ear discharging for some two years.

The accompanying chart (rectal temperatures) is illustrated by the following comment: On September 6th, I performed the radical operation. On September 8th I examined the cavity again, which appeared to me healthy.

On September 11th (see chart), I opened the lateral sinus with a knife. It bled freely and showed no signs of

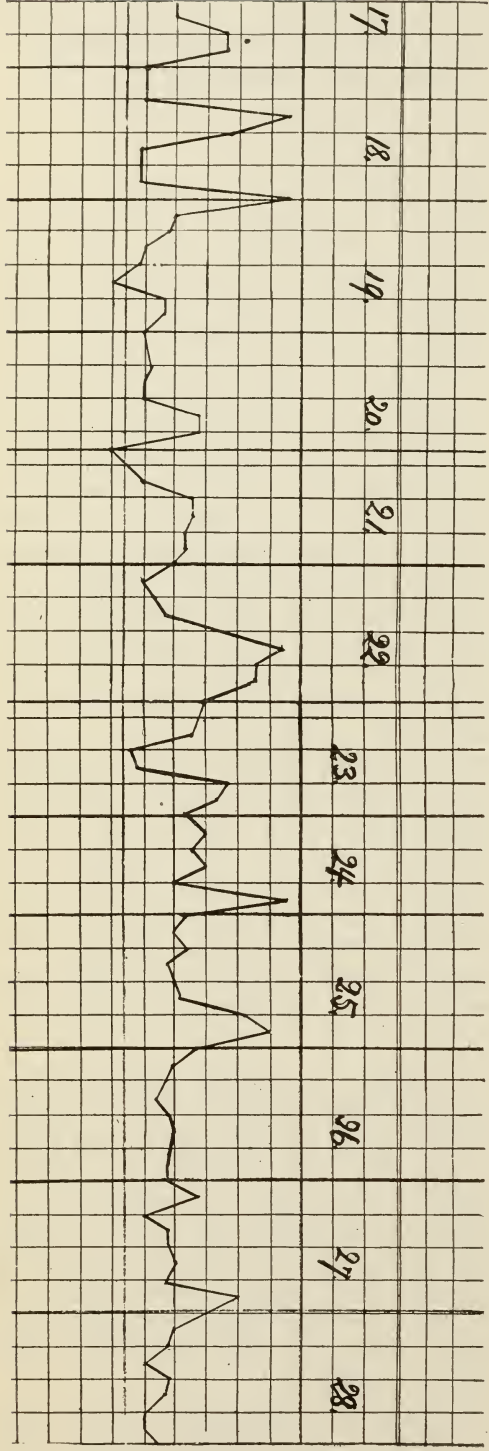
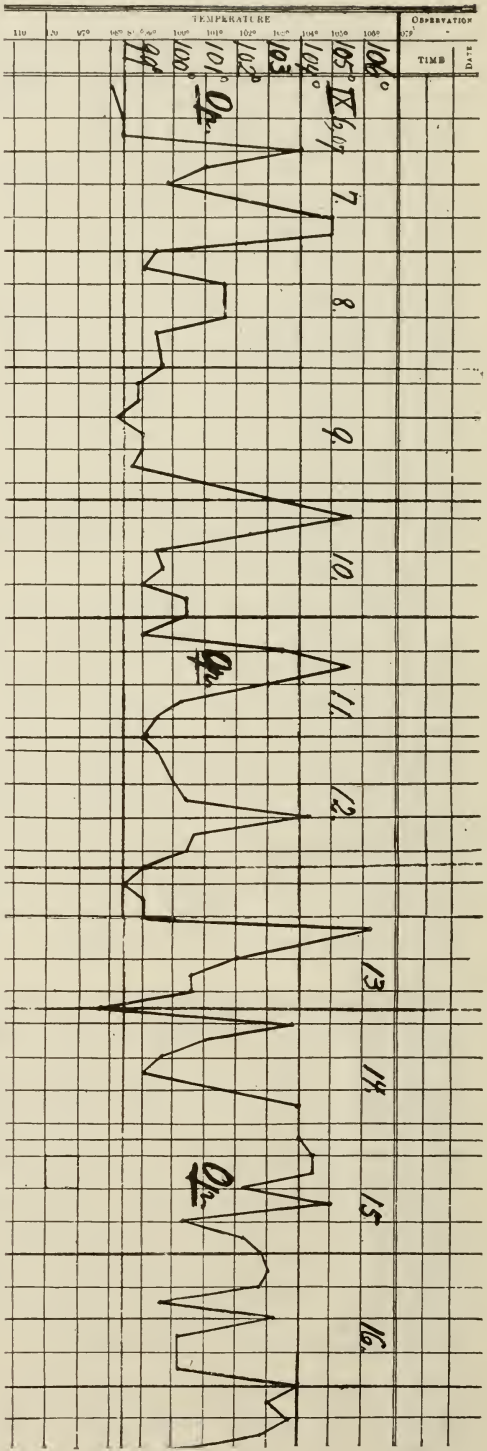
disease. Bearing in mind the possibility of thrombosis of the jugular bulb, I asked Dr. Ballin to be kind enough to tie for me the internal jugular vein.

There was always some offensive odor to the discharge.

On September 15th I opened the middle cranial fossa. The dura appeared healthy. Examining with the curet, the posterior wall of the extensive wound cavity I detected some thin, foul smelling discharge on the wall separating the posterior cranial fossa from the wound. As I had no other evidence of disease causing the very high temperature in the child (106.2° on the 13th of September), I concluded that the seat of the trouble must be towards the posterior cranial fossa and concluded to examine in that direction. While chiseling between the lateral sinus and semi-circular canals suddenly thick, yellowish green, pistache ice-cream-like pus was liberated. I entered with the curet to the depth of about a quarter of an inch into the cavity, and very gently removed material which may have been broken down brain tissue. I did not use any force whatever and stopped curetting as soon as I concluded that I had removed practically all of the diseased material possible without injury to the healthy tissue, which, I thought, was the case when the field was covered with blood.

To this very careful manipulation I attribute the success of the operation. The chart shows an improvement immediately after this operation. Quinine seems to have been very beneficial to the patient after evacuation of the abscess. The pulse varied mostly between 120 and 140, rarely going down to about 100 or 110 until September 29, when a tendency toward a more diminished pulse rate is noticeable.

Patient was discharged on the tenth of October from Harper Hospital. The



further course was uneventful. The child living out of town went home in due course of time, and the very slight discharge from the lower portion of the tympanic cavity does not molest the child in the least.

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## CONCERNING THE RECTAL VALVES\*

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J. A. McVEIGH, M. D.,  
Detroit.

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The rectal valves have long been a subject of more or less discussion among anatomists, as well as those who are interested in the study of proctology, but apparently they are not given a great amount of consideration by the profession generally. This is probably due to the fact that in their normal state these valves, by reason of their location, attract but little attention.

When they become abnormal or hypertrophied, however, they are a fruitful source of trouble and are often a prominent causative factor in constipation or obstipation, stricture of the rectum, or fecal impaction.

Gant reports an interesting case of fecal impaction where the mass rested immediately above the second rectal valve. He says: "In this case the valve projected into the caliber of the bowel much further than usual, was much thickened, highly inflamed and appeared to be the principal cause of obstruction."

The fact that the valves are so frequently the predisposing causes of these conditions makes the subject one of no little importance and it is my intention to review briefly the literature concerning them.

The first published report describing the rectal valves appeared in the Dublin

Hospital Reports of 1830, and was written by Mr. John Houston, and since then the rectal valves and the "valves of Houston" have been synonymous terms.

After Houston, much was written by different men, with variations of course, prominent among whom might be mentioned, Morgagni, Cloquet, Portal Otis, Nelaton, Velpeau, Quenu, Hartman and Kohlrausch.

The writings of some of these men even antedate those of Houston, but the latter was the first to furnish a clear description of the valves as to number, location, functions, etc.

Coming down to the present day we find Kelsey, T. C. Martin, Pennington, Tuttle, Gant and others giving the subject much thought and attention, but the work is all along the lines laid down by Houston.

### Description of the Valves.

The mucous membrane above the crypts of Morgagni appears in irregular folds. The majority of these folds disappear, as a rule, when the bowel is distended, but at several points they become more prominent under distention and extend out into the lumen of the gut in the form of crescents. These are the rectal valves, or the valves of Houston. They are usually three in number and are termed the superior, middle and in-

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\*Read before the Wayne County Medical Society, October 28th, 1907.



ferior valves, according to their location. The number may vary however from one to five, but in the majority of cases three are found.

The most prominent of these three valves is the middle one and its situation is determined by the depth of the peritoneal cul-de-sac, the valve being always located just beneath it. Ordinarily it is found about three inches from the anus, and it appears projecting from the right anterior wall. This valve is the "*Plica transversalis recti*" of Kohlrausch. The superior valve appears at the recto-sigmoidal junction, on the left rectal wall and somewhat anteriorly. The inferior valve is also on the left side, posteriorly and is usually found slightly more than one inch above the anal margin.

The valves are crescent shaped and are attached to the wall of the bowel for from one-third to one-half of its circumference. Under normal conditions the free borders of the valves are thin and freely movable, so that during the descent of feces they are easily pushed aside. The bases of the valves, where they are attached to the rectal wall, are somewhat more thickened and the attachment is slightly higher on one side than on the other, giving the valves an inclined plane appearance and aiding the feces in their downward movement.

In selected cases, with the patient in the knee chest position, with the rectum well inflated, and with the aid of a proctoscope and a good light, one can see all the valves at the same time.

### Structure of the Valves.

The structure of the rectal valves varies to some extent but the majority of investigators and writers on the subject agree that the composition in the average case is somewhat as follows: Mucous membrane, submucosa, circular and longitudinal muscular layers and a sub-

serous layer in which is included areolar tissue, fat, the lymphatics, nerves and blood vessels. The mucous membrane is continuous with that of the rest of the bowel and differs from it only in that here the muscularis mucosa is somewhat more developed than in other parts of the rectum. According to Martin, the submucosa contains fibrous tissue, and he maintains that the presence of this tissue is a prime factor in constipation which results from hypertrophy of the valves.

Pennington, who has done much original work along this line, claims that in a series of experiments which he made, the circular layer was found to extend well into the valves, being much thicker here than elsewhere, while the longitudinal fibers were found to be present less often than the circular, sometimes passing over the base of the valve and at other times dipping into the depressions formed by the entrance of circular fibers into the valve.

### Function of the Valves.

It is generally agreed that the principal function of the valves is the support which they give to the fecal mass in its descent through the lower part of the alimentary canal.

By reason of their arrangement and structure the valves impart sort of a rotary or corkscrew motion and presenting as they do an inclined plane appearance, the feces pass from the sigmoid and are deposited upon the upper surface of the superior valve, from which they glide gradually downward to the upper surface of the middle valve: in the same manner they are passed from here on to the upper surface of the inferior valve and thence into the rectum. It will thus be seen that the valves prevent a too rapid descent of the feces and the gradual downward passage of the latter gives the sphincters and levator ani muscles warning of their approach.

In this connection, attention might be called to some interesting experiments which are reported by Pennington and Martin. Lubricated cotton balls were deposited in the sigmoid and their descent observed through a proctoscope. These balls were seen to pass from the sigmoid on to the surface of the first valve, and by means of the rotary or corkscrew motion referred to in connection with the descent of feces, were passed on to the next valve and in like manner on to the lower valve and finally into the mouth of the proctoscope.

We have seen that when the valves become hypertrophied they act as a barrier to the descent of feces, in addition to being a fruitful cause of stricture, fecal impaction, constipation, etc. This naturally brings us down to the question of operating for conditions of this sort.

Martin was the first to devise the operation known as valvotomy for hypertrophied valves. His method was somewhat as follows: The usual preliminary preparations for an operation having been made, the patient is placed on the operating table in the knee chest position and with the aid of a good strong light, either direct or reflected, a proctoscope of fairly good size caliber is introduced up to the offending valve. The valve is then grasped on either side of the point where the incision is to be made by a long tenaculum and with a curve-point bistoury (designed by Dr. Martin for this use) the valve is transfixed, this initial incision being rather superficial. A scalpel, which he has also devised for this use, is then employed to carry the incision to the depth he desires. It should be stated here that Martin advises the use of a proctoscope that will just reach up to the valve to be incised. The incision should be made with the valve at right angles to the wall of the rectum, and the use of a proctoscope of the proper length will obviate the necessity of dragging the valve out

of its position down into the mouth of the instrument.

Formerly if any hemorrhage occurred, he applied temporary clamps, but he later resorted to the use of sutures in bringing the severed edges of the mucous membrane together. Inasmuch as Martin states that he never had a severe hemorrhage follow this operation, it is questionable if the use of sutures is advisable, since it is obviously a difficult matter to secure primary union in this location. After the operation, the wound is looked after and treated according to requirements, and after a few days massage or divulsion of the valve may be necessary.

The other operation is by means of a clip devised by Pennington, which was later modified by Gant, by means of which, through gradual pressure, necrosis of the tissues is brought about. In this manner hemorrhage is avoided and the two layers of mucous membrane are brought together in such a manner that danger of perforation and subsequent peritonitis is avoided.

Gant gives the following description of this operation: "After the rectum has been thoroughly cleansed, place the patient in the knee chest position and divulse the sphincter with Kelly's Conical dilator. A large proctoscope of suitable length is now introduced and the rectum allowed to become inflated, exposing the valve. The proctoscope is so adjusted that the valve to be divided crosses in front of it at a right angle. A clamp, to which a long thread has been attached, is placed in the applicator and the screw so operated that it remains open. The instrument is then introduced through the proctoscope and the clamp slipped over the valve, when the screw in the end of the applicator is turned to the left until the clamp closes on the valve and is freed. The proctoscope is now removed and the string left hanging out of the rectum to prevent the

clamp being carried upward by reverse peristalsis when it has cut its way out."

Since writing this description of the clamp operation, Dr. Gant has improved his clamp applicator by adding a ratchet arrangement which greatly simplifies the operation inasmuch as it obviates the necessity of regulating the screw at the end of the applicator. He has evidently changed his mind to some extent in regard to reverse peristalsis, for during my association with him he did not attach the thread to the clamp in the manner referred to in his description of the operation, and in every case that I saw with him, the patient returned the clamp promptly within the specified time, usu-

ally five or six days.

As to the comparative merits of the incision and clamp operations, while Dr. Martin reports most excellent results from his method, the fact remains that the clamp is much the safer operation and producing as it does results at least as good as the other, it should in my mind be the operation of choice.

In conclusion it may be said that in cases where the operation is performed for the relief of constipation of long standing, it is likely to be a failure unless the patient's diet and habits are regulated and his mode of life arranged in a manner conducive to regular action on the part of the bowels.

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**Medical Treatment of Cholelithiasis.**—Dock, Ann Arbor, says that two things have contributed to put the treatment of cholelithiasis on a certain basis: First, Naunyn's demonstration that gallstones are chiefly due to infection and stagnation of bile, supplemented by Kramer's experiments showing that the colon and typhoid bacilli precipitate bile in the test tube, and, second, the revelations of the actual conditions by surgeons. Prevention must be limited practically to those who have a known tendency as shown by previous infection of the biliary tract. The measures required are generally well known. They consist in regular healthful habits as to diet, regulation of the bowels, moderate exercise, avoidance of tight clothing and anything that can cause congestion of the portal circulation. Systematic deep breathing is perhaps useful in overcoming such congestions. Among drugs, salicylates are probably of definite value as disinfectants and cholagogues, but they should be watched and stopped if undesirable effects appear. The presence of the stone is less important than the existence of the infection, and the therapeutic problem is not to lessen pain so much as to lessen inflammation and the attendant risks. The majority of the cases, in the attack, are not surgical, but they should be viewed with a surgical eye, and if the physician is unable to do this he should have a surgeon's

co-operation. For the attack, anodynes to relieve pain, but not to entirely becloud the clinical picture, are advised. Dock does not use chloroform in these cases. Local hot applications and the hot full bath are useful, but he prefers copious washing of the stomach with hot water or hot Carlsbad water, which, theoretically, should lessen congestion and act as a general sedative to the affected tissues. Rest so far as possible and movements of the bowels should be encouraged. The after-treatment depends on the suspected conditions in the biliary tract, and after the acute symptoms have passed especial attention should be given to the occurrence of bile in the urine or stools, leucocytosis, etc. Dock thinks the passage of gallstones out through the common duct a comparatively rare event and that in many cases in which this is supposed to have been the case perforation has actually occurred. Perforation can easily happen in the severer attacks of bilious colic, but he is also convinced that it sometimes occurs with symptoms so mild as to be overlooked at the time and only discovered by operation or autopsy. In conclusion, Dock expresses the opinion that olive oil may possibly be of some service in reducing gastric hyperacidity and hypermotility, thus improving intestinal digestion and relieving some of the symptoms.—*Jour. A. M. A.*, Oct. 26, 1907.



## The Journal of the Michigan State Medical Society

All communications relative to exchanges, books for review, manuscripts, advertising and subscriptions should be addressed to B. R. Schenck, M. D., Editor, 502 Washington Arcade, Detroit, Mich.

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DECEMBER

### Editorial

**Pleasing Signs of the Times.**—Two papers have recently come to our notice which throw a gratifying light on the progress being made toward harmony between the warring schools of medicine.

Dr. Cabot's utterances<sup>1</sup> from our own side of the fence will be recognized by the candid and open-minded majority among us, to be a very well-composed and fairly accurate statement of the extent to which we have gone in laying aside our prejudices and forgetting our resentment of the exaggerated claims of the founders of homeopathy. To many it will seem that in his desire to do full justice he has allowed the scale to tip the other way, and that some of the resemblances he finds between our modern practice and treatment by similars are rather superficial; but few will deny the existence of a very general feeling that the real differences in theory and practice between the average homopath and ourselves are too small to keep us apart. In fact, considering the establishment in homeopathic colleges of courses in bacteriology, physiological chemistry, pathology, etc., the only real grievance we have left against any of that sect, except the very small fraction who still believe in the universality of Hahnemann's laws, is that they persist in remaining a sect: that practicing under the name of a cult which had its origin and excuse for ex-

istence in a belief in Hahnemann's ideas they refuse to be bound to the law of similars and minute doses, but use whatever medicines seem best to them in whatever way they please. In short, the attitude of most of us toward homeopathy has been that to attempt to treat all diseases by the law of similars is absurd, while to call oneself a homeopath and at the same time make free use of drugs and methods of treatment which bear no relation to the principles of homeopathy has a savor of hypocrisy. These facts as to our own position are familiar enough, but it will doubtless be a surprise to many to know how far so representative a homeopath as the President of the Homeopathic Medical Society of Michigan, Dr. Harold Wilson, felt free to go in the annual address before that society this spring<sup>2</sup>—an address so conspicuous for candor and open-mindedness, as well as for literary qualities, as to deserve very careful consideration. Briefly summarized, it discusses the changes in homeopathic practice, and its gradual alienation from the original theories of Hahnemann; treats quite as frankly as would any of us of the difference between the practice and the ostensible principles of the average homeopathic physician; demonstrates the absurdity of the present official definition of a homeopathic physician and suggests finally the following as a possible solution: "*A homeopathic physician is one who has studied the law of similia. The great field of medical learning being his, he may choose whatever drugs or methods will secure to his patient the greatest good.*" Certain sentences are too significant to leave unquoted. For example: "What does the homeopathic physician wish to do with all this (wide field of medical) learning, if he believes in the universality and sufficiency of the law of

1. Address before the Boston Homeopathic Medical Society, Nov. 1, 1906.  
2. "The Homeopathic School—An Introspection." May 21, 1907.

similars? \* \* \* Would it not be more generous to leave this learning to those who have created the most of it?" "It looks very much as if the (present) definition were made to fit the fact that most homeopaths do not believe homeopathy to be a system of medicine, but only a system of therapeutics, and even then limited in its application." Again we read: "Has the law of similars so little vitality that this law needs the constant support of organized effort to keep it alive? Do other natural laws require societies for their preservation? The time approaches when we must answer the problems that press upon us; must answer them with the utmost intelligence, fairness and honesty of which we are capable. As our ideals differ, so will our answers. If I believe that the law of similars is the most priceless jewel in our keeping and that our duty is not only to heal the sick, but to strive to carry the convictions of homeopathy onward until the whole world is converted, then there is no need to talk of compromises with the enemy. If, on the other hand, I believe that the law of similars is but a single fact in the domain of medical science; if, in short, I believe that my whole duty is to be a physician and to heal the sick, then I will consider whether these objects can best be attained by maintaining or by abolishing the school of medicine we now cherish."

The trend of these statements is obvious; their weight is the greater when one considers to whom they are made. Surely no one can accuse Dr. Wilson of hypocrisy.

It is easy to think that in place of his suggested definition, his own logic might have led him to say that the true homeopathic physician is one who believes in the universality and efficiency of the law of similars, and that for those others who have studied this law, and believe in its occasional application, the need of

clinging to a sect has long ceased to exist. We may say that the field of non-sectarian medicine is wide enough for everyone but the bigot, and there are no fences nor gates to bar the open-minded man who wishes to enter it; that those of our homeopathic brethren who feel the need of more breathing space than their own little enclosure affords are always free to come out and join the rest of us in seeking the truth wherever we can find it. Easy to say, but is it true? Obviously, there must be reasons why Dr. Wilson and the many others who think as he does still call themselves homeopaths, and we may well ask ourselves whether much of the responsibility does not lie with us. Have we been wholly free from prejudice and bitterness? Have we been quick to recognize and eager to encourage any tendency in such men to free themselves from sectarian medicine by making the path easy for them, or have we thrown unnecessary and unreasonable obstacles in their way? Have we, in Michigan especially, welcomed them to our own societies, or have we rather practically excluded them by insisting on their compliance with almost impossible conditions? Is it wholly just; and if just, is it politic, to demand that a man who has spent a large part of his career in the ranks of homeopathy, and is bound by a network of professional and social relations shall sunder those bonds abruptly and violently before we will give him recognition? Would it not be wiser and more generous to concede every possible point? If, to use Dr. Wilson's words "we are moved more by sweetness than by bitterness, more by toleration than by prejudice, and most of all by the highest and best that is in us," shall we not hasten the "social evolution in medicine which is destined some day to create out of the present discordant elements a concordant, unified and glorious profession"?

**The Fees Paid for Life Insurance Examinations** interest a large number of our readers. The question has been discussed in a number of county societies and, before the winter is over, should receive attention in others. In the October issue of the *Journal* appeared a list of companies paying the flat five-dollar fee and a number of letters regarding this list have been received. It seems that the *Sun Life Assurance Company* of Montreal and the *Union Central of Cincinnati* should not be included in the list. Unless we are mistaken, these companies are paying five dollars in some states. Several letters addressed to the medical director of the *Union Central* regarding the fees paid, have not been answered.

Doubt was expressed by several correspondents concerning the amount paid by the *Penn Mutual* of Philadelphia. This company should not have been included in the list, but we are glad to say is now eligible. The following letter has been received:

Medical Department

THE PENN MUTUAL LIFE INSURANCE  
COMPANY, PHILADELPHIA.

Philadelphia, November 7, 1907.

Dear Doctor:

I desire to inform you that on and after November fifteenth, 1907, the Fees of the Company will be as follows:

For each complete examination, irrespective of age and amount (an analysis of the urine being required in every case), Five Dollars (\$5.00).

For microscopic examination of the urine when required, an additional fee of Five Dollars (\$5.00).

An examination by one physician covers all cases up to \$25,000 of insurance.

For amounts over \$25,000, up to and including \$50,000, one examination supplemented by a microscopic examination of urine is necessary.

For amounts in excess of \$50,000, complete examinations by two physicians, with microscopic examination by the senior examiner, are required.

Very truly yours,

OLIVER P. REX, M. D.

Medical Director.



**Forty Years of Service.**—Under the auspices of the Wayne County Medical Society, a complimentary dinner was tendered Dr. H. O. Walker, the eminent Detroit surgeon, on Wednesday evening, November 13, 1907. Nearly one hundred and fifty members and guests gathered to testify to their recognition of Dr. Walker's professional standing and to express their appreciation of their guest's accomplishments in the field of surgery during forty years of practice. Among those from out of town were Dr. J. W. Inches, of St. Clair; Dr. C. T. Southworth, of Monroe; Dr. S. I. Small, of Saginaw; Dr. H. E. Randall, of Lapeer; Dr. C. B. Burr, of Flint; Dr. W. F. Breakey, of Ann Arbor, and Dr. V. C. Vaughan, of Ann Arbor.

After an excellent dinner, Dr. J. H. Carstens, acting as toastmaster, called for the reading of letters from those who were unable to be present. Letters, filled with expressions of regard and appreciation, were read from a number of Wayne County members and from Dr. E. T. Abrams, of Dollar Bay; Dr. A. E. Bulson, of Jackson; Dr. G. C. Hafford, of Albion; Dr. Eugene Boise, of Grand Rapids; Dr. W. H. Sawyer, of Hillsdale; Dr. J. J. Reycraft, of Petoskey; Dr. E. A. Christian, of Pontiac, and Dr. J. M. Matthews, of Louisville.



In introducing Dr. Walker, the toastmaster said that the gathering was the largest which had ever taken place in Detroit on such an occasion.

Dr. Walker said: A victim of an occasion like this is quite liable to incoordination of thought, therefore what I have to say I have committed to paper.

When I first received knowledge, while at Columbus attending the meeting of the Mississippi Valley Medical Association, that a dinner was to be given me in honor of my having practiced medicine and surgery for forty years, the thought occurred:—I wonder if the fellows of this society have had enough of me and this was a polite intimation that said, "Old fellow your time is up and you should be put away on the shelf." But afterwards I had another thought, and the thought is strengthened by the presence of so many of you here tonight, that it was an expression of your good will toward me, that in the strife for success in our profession there is in us much of the milk of human kindness, still a goodfellowship that over-balances our ambition, and we occasionally take a day off, and, as Whittier says, "To make the world within our reach somewhat the better for our living and gladder for our human speech." This is, however (with apologies to Dooley), not a "retirement ratification."

I wish to say at this time that I had never expected this, and I cannot express fully in words the gratification it affords me. It is a home coming that can never be effaced from memory. Forty years is a long time to look forward to, yet it seems but yesterday since I received my diploma from old Bellevue on February 28, 1867. The teachers, distinguished as they were of that time, are all dead but one, and he is an old man. (Austin Flint, Jr.)

Memories of instances and events crowd so thick and fast that time will but allow for a passing notice of them. The war of the rebellion had but just closed when I entered upon my professional career, and the country had only entered the career of unsurpassed prosperity in every line of professionalism and commercialism. A medical education at that time only required two courses of less than six months each with only one compulsory laboratory course, that of anatomy, with but a limited amount of preparatory education. There was no control of the practice of medicine; in fact any one might assume the title of doctor. To-day it is very much better,

and we have a four years' course of nine months each, with laboratory instruction in every department. Most State Boards of Registration require, as an entrance to the study of medicine, a high school course, while many of them have and are fast approaching a literary degree of high standard. No longer does a degree from a Medical College say that he who possesses it can practice medicine. This must be passed upon by a State Board. While crudities still exist, the advances are steadily increasing.

In 1867 anesthetics were about the only thing that we had, except rapid operative technique with a better anatomical knowledge than we have now. We knew gross pathology, but little of its microscopical appearances. Systematic and scientific antisepsis and asepsis did not commence until after ten years after this, with the development and better acquaintance of biology, comparative anatomy, physiological chemistry, normal and pathologic histology, bacteriology, and the use of allied sciences with their discoveries. Hospitals were few and far between.

I had the pleasure of being Secretary of this Society in 1869. The members at that time, as near as I can remember, were Drs. Zina Pitcher, a dignified practitioner of the old school and an ex-president of the American Medical Association; William Brodie, another ex-president of the American Medical Association, combative in nature, which was usually exercised in behalf of those oppressed, a man of goodly heart; Drs. E. W. Jenks, D. O. Farrand, George P. Andrews, S. P. Duffield and T. A. McGraw were also members. They were the beginners in teaching advanced medicine and surgery, in establishing a preparatory school of medicine from which much has developed as to our standing and the making of this city a medical center.

Three of these distinguished gentlemen have passed away. Two are still with us. Dr. Duffield now reaping the earned laurels of retirement. Dr. McGraw, whose career is an open chapter, is still actively engaged in the practice of his profession. Drs. Moses Gunn and Samuel G. Armour were also members and eminent teachers in the department of medicine and surgery have long since passed away. Drs. Henry F. Lyster and H. E. Smith, who were then young men, and in whose offices most of our meetings were held at that time, are also numbered among the dead. There are some here who will remember Dr. Richard Inglis, a man who was good and beloved by every one who came in contact with him. He left an

impress that did much towards the advancement. Drs. Moses Gunn and Samuel G. Armour were members and others whose names I do not recall. In looking about me I see those in the prime of life, old acquaintances and friends that I knew when they first commenced. I have always prized their acquaintanceship and association. There are many others whom I knew before, and at the time of the commencement of their medical career. I have watched with pleasure their work and I have always felt that I could meet them as hale fellows well met. Others here are newcomers and have already shown that they are "lifters and not leaners." The medical profession of Detroit stands prominently in the front rank. I feel that whatever success that has come to me is largely due to you, and in closing I wish again to thank you for this expression of your regard for me.

The toasts responded to were "Forty Years' Surgical Practice," T. A. McGraw; "Forty Years of Medicine in Detroit," J. Flintermann; "The University," V. C. Vaughan; "Detroit as a Medical Center," E. L. Shurley; "The Profession in Local History," Hal C. Wyman; "The Eye of the Surgeon," Eugene Smith; "H. O. Forty and Twenty Years Ago," Angus McLean; "The County Society," A. N. Collins; "Walker and the Young Surgeon," C. M. Stafford.

Many interesting anecdotes of earlier days in Detroit were related, and all of the speakers spoke of the many contributions with which Dr. Walker has enriched surgery; of his efforts in behalf of medical education; of his great capacity for work, and of his unswerving honesty and uprightness.

In honoring Dr. Walker, the Wayne County Society honored itself. The evening will long be remembered by the older members because of its pleasant reminiscences and by the younger because of the inspiration derived from the toasts.

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The occurrence after laparotomy of marked distention of the upper abdominal zone, vomiting and collapse, points to acute dilatation of the stomach.

## Book Notices

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**Diseases of the Stomach.** By Dr. I. Boas, Specialist in Gastro-enteric Diseases in Berlin. Authorized English-American Edition from the Latest German Edition. By Albert Bernheim, M. D. (Freiburg, Germany); Instructor in the Philadelphia Polyclinic. Five full-page plates and sixty-five engravings in the text. 730 Royal Octavo pages. Extra cloth, \$5.50. Sold only by subscription. F. A. Davis Company, Publishers, Philadelphia, 1907.

There are doubtless many physicians in America to whom an English translation of a standard text book by so widely recognized an authority in his specialty as Boas will be very welcome; and the present volume has one element of especial value to the general practitioner in that, while it treats fully and fairly of the conflicting views of other authorities, it is, after all, written from a decidedly personal view point and never fails to give a definite opinion as to the merits of the particular question under discussion, instead of leaving the reader to judge for himself from his more limited experience and smaller knowledge of the value of evidence.

The introduction contains chapters on the topographic and histologic anatomy and on the physiology and chemistry of the stomach, the latter of which seems very brief and incomplete for a book of such proportions.

The book proper consists of sections on methods of general examination, general therapeutics, and special diagnosis and therapeutics. The chapter on the anamnesis is well worth reading by anyone. The methods of chemical and physical examination are very fully discussed, and their practical application is made very clear. The chapter on diet contains valuable suggestions, and the whole subject of general therapeutics is treated with conspicuous common sense and little suggestion of faddism.

The section on special diagnostics and therapeutics is full and well arranged, and gives throughout evidence of wide experience and clear thinking.

Valuable as the book is in many ways, it has one defect so obvious that one wonders somewhat at its publication now. It is true as stated on the title page, that this is a translation of "the latest German edition," but one need not go far to see that "the latest German edition" was published in 1903, and that this volume contains no reference to literature of later date.

It needs but very slight consideration of the character and importance of recent researches on



secretion and metabolism and the decided effect that some of them must have upon both diagnosis and therapeutics of digestive disorders to show that this book is by no means so nearly up to date as any new publication should be.

The translation is on the whole good, and preserves the sense well, in spite of rather frequent transference of German idioms. The retention of certain spellings which are rapidly becoming obsolete in medical literature, such as the final "e" in *pepsine* and the diphthong in *haemorrhage*, seems unfortunate. The translator's interpolations cannot be said to add much value to the text.

Paper and print are excellent; illustrations not remarkable, with the exception of four skiagrams by Pfahler showing the movement of the stomach in gastropotosis.

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**Surgery: Its Principles and Practice.** In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL.D., Hon. F. R. C. S., Eng. and Edin., Professor of the Principles of Surgery of Clinical Surgery, Jefferson Medical College, Philadelphia. Volume II. Octavo of 920 pages, with 572 text-illustrations and 9 colored plates. W. B. Saunders Company, Philadelphia, 1907. Per volume: Cloth, \$7.00 net.

The second volume of this splendid work is devoted to the disease of the bones, the lymphatic system, skin, nerves and to orthopedic surgery.

Nichols of Harvard, writes the opening chapter on the histology and pathology of the bones. The important subjects of osteomyelitis, tuberculosis and syphilis are exhaustively treated. Tumors of the bones receive due attention. Fractures and dislocations are considered by Eisendrath, of Chicago, in a particularly practical manner; in fact we know of no treatise giving more clearly the diagnosis and treatment of these lesions than does this. The completeness of the discussion of fractures may be judged from the fact that over 200 pages are devoted to their consideration.

Lovett and Morse contribute a classical chapter on the surgery of the joints. The diseases of the muscles, tendons and bursae are satisfactorily discussed by Binnie, of Kansas City.

One hundred and twenty pages seem a small amount of space in which to discuss orthopedic surgery, but Lovett, of Boston, has condensed the subject matter so successfully that it has suffered but little.

The surgery of the lymphatics is discussed by Gerrish, of Portland, and that of the skin by Fordyce, of New York. The pathology of surgical disorders of the nervous system is described, in

his usual masterful style, by Spiller, of Philadelphia. The operative treatment of these conditions will be considered in Volume III.

The surgery of the insane is described by Da Costa, and that of the spine by Woolsey, of New York.

We believe this volume to be even better than the first of the series. It is splendidly illustrated and the book work is the equal of any of the excellently printed and bound volumes issued by the publishers.

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**A Treatise on Fractures and Dislocations.** By Lewis A. Stimson, B. A., M. D., Professor of Surgery in Cornell University Medical College, New York. New (5th) edition, thoroughly revised. Octavo, 847 pages, with 352 engravings and 52 plates. Cloth, \$5.00, net; leather, \$6.00 net; half morocco, \$6.50, net. Lea Brothers & Co., Philadelphia, 1907.

Stimson's work undoubtedly retains the excellences of its original edition, and a great deal has been done to bring it up to date. The author's own productive experience is a large factor, and his thorough descriptions of pathology and diagnosis are satisfying. Certain elements peculiar to the medical books of a generation ago still linger in this one, and invite the wish that it could be entirely recast in modern mold. For instance it is disappointing to have pages of unassailable text adorned by so few or so poor illustrations. Treatment especially could be elucidated more effectively by the use of photographs of procedures, apparatus, etc. Occasional omissions are noted, as for instance, failure to mention certain successful interdental splints, and the method of Lothrop in treating fractures of the superior maxilla.

These few flaws are not conspicuous, except that they occur in a work otherwise so good. It is still the most complete book on the subject that we possess, inspired with a conservatism that is well measured and with detail that is scholarly.

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**Electro-Therapeutics and Roentgen Rays.** By Mihran Krikor Kassabian, M. D., Director of the Roentgen Ray Laboratory of Philadelphia Hospital. Octavo, 545 pages. Cloth, \$3.50. J. B. Lippincott Company, Philadelphia, 1907.

This valuable treatise upon a subject with which Dr. Kassabian is so familiar as a result of long and extensive experience, will be welcomed with special interest.

The work, as a whole, presents in a most concise and readable manner the different phases of



the subject at hand, and the 245 instructive plates lend an added interest.

Part first consist of 155 pages, divided into ten chapters. It deals with the subject of electro-therapeutics as applied in medicine. His concise definitions of electrical terms, as well as his plain explanations of the uses of electricity, therapeutically applied, make the book a very valuable reference to the student, as well as the physician whose work demands some knowledge of this subject.

A greater part of the work is devoted to Roentgen Rays, with a most interesting historical introduction. It is a descriptive treatise of the properties of Rays, the apparatus, their construction, the various means of application in diagnosis and disease. The accompanying plates assist materially in making the descriptions clear.

The chapter on "Forensic Medicine" is new and instructive, being a summary of various decisions in which several X-ray operators have been involved.

The appendix itself is invaluable, as it is a compendium of methods employed by the best authorities on the "Technic in Roentgen Ray Therapy."

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**Clinical Features on Symptomatology and Diagnosis of Disorders of Respiration and Circulation.** By Prof. E. von Neusser. Authorized translation by Andrew MacFarlane, M. D. 5½ x 8 inches; 203 pages. E. B. Treat & Company, New York, 1907. \$1.50.

Under the alluring title of "Disorders of Respiration and Circulation" MacFarlane has translated a series of exceptional monographs by Prof. Edmund von Neusser, of Vienna.

The first of these clinical treatises deals exclusively with Dyspnea and Cyanosis. It differs from the ordinary text book in that it accentuates the study of the prominent symptoms that call for treatment in medical patients.

After reviewing the causes of respiration and the modern physiology on the regulation of the interchange of gases in the tissues, he takes up in series pathological conditions that give rise to dyspnea and cyanosis.

The book is divided into two parts, that dealing with diseases of the respiratory apparatus, and that concerning changes in the circulatory system. The latter is further subdivided into diseases of the heart itself; into conditions of the gastrointestinal tract that disturb the circulation; into acute infections; into poisons that affect the cen-

ters of respiration and circulation, as well as the blood current, and into constitutional diseases that have some indirect bearing on the circulation and respiration. Although each chapter considers the treatment of each particular disease, the closing chapter takes up the general indications for therapy in dypnea and cyanosis.

It is an excellent volume, carefully translated and well published, offering important clinical and diagnostic features in a manner that is both novel and instructive.

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**The Practitioners' Visiting List for 1908.** The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil and rubber, and calendar for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Lea Brothers & Co., Philadelphia.

This popular visiting list has appeared for 1908, being the 22nd year of its issue. It contains a scheme for dentition; comparative tables of weights and measures; methods of urine examination; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; dose tables, etc.

It is issued in four styles to meet the requirements of every practitioner: "Weekly," dated for 30 patients; "Monthly," undated, for 120 patients per month; "Perpetual," undated, for 30 patients weekly per year, and "60 Patients," undated, for 60 patients weekly per year.

Being printed on tough paper and strongly bound in grained leather, it will stand the wear and tear of daily use for a year.

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## County Society News

### SEVENTH DISTRICT.

The third annual meeting of the Seventh Michigan District was held at Bad Axe October 24. There were about thirty members present. After the meeting was called to order by the district councilor, Dr. Mortimer Willson, of Port Huron, the following papers were read: "Peri-anal and Peri-rectal Abscesses," by Dr. Wm. L. Dickinson, of Saginaw; "Extra-uterine Pregnancy," by Dr. W. J. Harrington, of Bad Axe; "The Insanities of Early Life," by Dr. H. Ostrander, of Kalamazoo; "Diseases of Joints," by Dr. H. E. Ran-

dall, of Lapeer; "Echinococcus Cyst of the Liver," by Dr. B. Friedlander, of Sebewaing. An enjoyable banquet was held in the evening, at which the following toasts were responded to: "An Organized Profession," by Dr. Herman Ostrander, President of the State Medical Society; "Hold Fast to the Ideal," by Dr. Mortimer Willson, Councilor of the District; "What I Saw in Europe," by Dr. W. L. Dickinson; "The Country Doctor," by Dr. F. S. Sellars; "The Doctor in Politics," by Dr. H. W. Pfaff. Dr. C. C. Clancy, of Port Huron, acted as toastmaster. At the afternoon session Dr. Chas. B. Morden was appointed chairman, and Dr. D. J. McColl secretary.

DANIEL CONBOY,  
Sec. Huron Co. Med. Soc.

#### ELEVENTH DISTRICT.

The Eleventh Council District meeting was held at Muskegon Tuesday, November 12, 1907.

There was a fairly good attendance of physicians from the district outside of Muskegon-Oceana counties. There was also a good attendance from Grand Haven, Spring Lake, and Coopersville, by physicians at those places, although outside of the district, in response to invitations sent to them. The physicians of Muskegon and Oceana counties turned out in a good number and helped to make the meeting very successful.

All those who had been invited to take part in the program did all in their power to make the meeting successful, and not one number on the program was a disappointment in any way. The program as planned was fully carried out, with the exception of clinical demonstrations by Dr. Hirschman. These were necessarily omitted on account of their being no clinical material. Dr. Hirschman's paper was, however, quite thoroughly discussed and the clinical application of the methods of treatment was well brought out.

One of the interesting features of the program was that of Dr. Griffin's paper. The doctor gave a resumé of a recent outbreak in Oceana county of epidemic poliomyelitis. He showed seven or eight cases of this trouble in the different stages of paralysis following the acute attack.

The social features of the day were very much enjoyed. After assembling at the Century Club the physicians were taken in automobiles at 10:30 for a trip about the city to different points of

interest, terminating at Hackley Hospital at 12 o'clock.

At 12:30 an informal luncheon was served at Hackley Hospital, by the hospital, which was partaken of by about fifty guests.

At 1:30 the meeting was called to order in one of the wings of the hospital by Dr. J. F. Denslow, president of the local society. He introduced the Rev. Archibald Hadden, president of the Hackley Hospital Board of Trustees. After a welcoming address by Rev. Hadden, the regular scientific program was successfully carried out. The demonstrations on Opsonins by Dr. E. C. L. Miller, of Detroit, were very interesting, and the process was carried out step by step by him in such a careful and painstaking manner as to be easily comprehended and thoroughly understood by all present.

The paper by our State President, Dr. Ostrander, was a thoroughly comprehensive one and was listened to with intense interest. Dr. Garber presented a very interesting case of "Staphylococcic Infection of the Scrotum Necessitating Extensive Plastic Operation," with pathological specimen, showing entire scrotum which was sloughed off.

At the close of the meeting an enthusiastic vote of thanks was tendered to the hospital and to all those who had aided in making the meeting so successful.

Dr. W. T. Dodge, in behalf of the Montcalm and Mecosta Medical Societies, invited the Eleventh Councillor District to meet with them next year. The invitation was accepted with applause.

A very enjoyable dinner was given at the Century Club at 8 o'clock. Forty-three guests sat down and good speeches and a pleasant social time were enjoyed.

V. A. CHAPMAN,  
Sec'y Muskegon-Oceana.

#### CALHOUN.

Battle Creek Medical Club.

Several times during the past year notice has been made in these columns of the post-graduate work being conducted in Battle Creek.

Last year (1906-7) we had twenty-four meetings at which we conducted a course devised by our own committee. Interest was so great and there was such a feeling of satisfaction manifested by the society that we organized from

among the members of the Calhoun County Medical Society, the Battle Creek Medical Club. This club is holding meetings in the parlors of the Nichols Hospital each Monday evening, at which we are following out the A. M. A. Program as elaborated by Dr. J. H. Blackburn, of Bowling Green, Ky.

An outline of this work appears weekly in the Journal of the A. M. A., and printed outlines will be cheerfully furnished by Dr. Blackburn.

In Battle Creek our Program Committee meets the first Monday of each month and assigns the work for the month following, thus giving each lecturer at least four weeks to prepare his subject. We endeavor to give subjects each time to men who have not been on the program, thus passing the work around and equalizing not only the burdens, but the honors.

Thus far this fall we have had eight meetings with an average attendance of about 25. The interest seems to be increasing rapidly. The papers are well handled and well discussed.

We invite other societies to take up this work, and would do anything in our power to aid them in doing so.

WILFRID HAUGHEY,  
President Battle Creek Medical Club.

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#### CLINTON.

At the annual meeting of the Clinton County Medical Society, Dr. J. E. Taylor was elected president; Dr. W. A. Scott, secretary-treasurer.

The meeting was well attended. Dr. O. B. Campbell, of Ovid, presented a paper on "Senile Gangrene." The names of those expected to read a paper and an alternate are printed on our monthly program for each month of the year. By this method we hope to always have a paper in readiness.

W. A. SCOTT, Sec'y.

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#### EMMET.

Meeting of the Emmet County Medical Society was called to order, October 8, by the President, Geo. W. Nihart, and a large meeting was had. Representatives were here from many surrounding towns. The meeting was of interest because of members of the Charlevoix County Medical Society being present and wanting to

affiliate with Emmet, because of the peculiar geographical position of this county making it almost impossible to get together. A matter of Dr. John Peddin having a contract to attend families for \$2 per year whose head belongs to the Order of Eagles was taken up. As this is contrary to a resolution adopted by the society at its inception said member was found guilty, but a proviso to refrain from taking another contract was accepted and he was allowed to continue until December, the time being almost up.

Much interest was taken in a paper on "Appendicitis" read by the Secretary, Dr. John Reycraft, and a liberal discussion followed.

J. J. REYCRAFT, Sec'y.

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#### APPENDICITIS.

J. J. REYCRAFT, M. D.

After having acquired knowledge of appendicitis second hand, I am now acquiring it by actual experience, and having had twenty-nine cases this year, none of which resulted fatally, I feel that I can, with some degree of assurance, speak on the subject.

I wish to operate and operate early on every case of appendicitis, light or severe, for which I am responsible, as I believe that better results are obtained by early operation than by waiting. Three weeks ago, I was called to attend a boy whom I was informed had eaten his breakfast as usual and became ill in the forenoon. That same night, at 10 o'clock, I opened the abdomen, found it filled with a milky fluid, and the appendix filled with pus. Oschner asks that all cases be prepared for three days before the operation, but by that time it was possible the funeral would have been held. Such men, by giving such advice, do untold mischief to timid operators. If we wait to see how the case will go, it may go wrong and be too late to do the operation and the patient will be almost sure to die, and the operation will be associated, in the minds of the laity, with death itself. If the physician is not prepared to operate, some one should be called in, who can and will operate. I see no need of dieting a patient before the operation, as the harm which can come in such a case is slight compared to what might come from delayed attendance.

Once having decided to operate, I go through the abdominal wall low down and out from McBurney's point, as I there find the wall thinner



and the appendix more often below the incision. It is never necessary to take out the intestine to reach the appendix, as it soon becomes as easy to know the appendix from the intestine as it is for one experienced to differentiate the after-birth from the walls of the womb, and so one finger will soon pull the appendix out of a very small hole. I usually tie off with braided silk and sew up. Should I find pus in the abdomen, I clean out the excess and go right on and pick up the appendix, as all the cases I have left have done badly and all I operated on did well. Always drain the pus cases, sewing up around the tube as though you were to close the wound entirely. I have had pus cases where the appendix lumen remained open and cornmeal gruel which I gave would come out of the tube as it was eaten, and yet the child would get well, heal up, and apparently suffer no bad results.

Patients after an operation should be given a liberal diet and allowed to be up early.

It is a crime to produce narcotics with chloroform or ether, as the vomiting that follows is very distressing and apt to disarrange matters and scatter the pus in pus cases. I have been using now for nine months hyoscin, cactin and morphine, from two to three tablets given hypodermically being sufficient and apparently producing no bad nor distressing symptoms.

A patient may be given water and food at once after waking.

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### HURON.

The Huron County Society, in separate session, on the date of the meeting of the Seventh Council District, elected its officers for the coming year as follows: President, Dr. A. M. Francis, Port Austin; Vice-President, Dr. M. C. McDonnell, Bad Axe; Secretary-Treasurer, Dr. Daniel Conboy, Bad Axe; Delegate, Dr. A. E. W. Yale, Bayport; Alternate, Dr. James E. Thompson, Elkton.

DANIEL CONBOY, Sec'y.

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### IONIA.

At a meeting of the Ionia County Society, held on October 17th, Dr. C. S. Cope read an historical paper of much local and state interest.

After picturing the Indian medicine man of 75 years ago, Dr. Cope said:

The first white man to practice medicine in the locality was Dr. William B. Lincoln, grand-sire to Dr. W. L. Barnes of our society. He came about 1833.

For the assistance of the secretaries who are to follow me, I have placed the foregoing on the society's books; in addition I have added the following necrology that will prove of interest and be of inestimable value as time goes by. The names appear as to seniority as nearly as I have been able to gather them. Some must have been omitted because of lack of data. These may be supplied later.

List of physicians (deceased) who have practiced in Ionia city and county:

Ionia City—William B. Lincoln, Norton Beckwith, Alanson Cornell, T. B. Benedict, David Arndt, Caleb H. Hammond, Mr. Ranney, Mr. Andrews, Fred K. Gundrum, Stanley Dolan, S. V. Romig, H. B. Barnes, S. F. Bayard, L. Joslin, Dr. James. Robert Logan, Chas. Bailey, J. G. Connor, W. B. Thomas, Henry Tremayne.

Portland—No record.

Belding—Dr. Romig was the first to practice there, followed later by Dr. Albert Conner.

Odessa—Dr. Kilpatrick was the pioneer physician.

Matherton—Dr. William Mather, 1849.

Muir—Besides W. B. Thomas, who practiced there before removing to Ionia, Drs. Lindsley, Lain, Ives, Halstead and Hollywood.

Lyons—Drs. John Jewett, David Kelley, B. M. Hutchinson, W. W. Walker, W. Z. Blanchard, Wm. Hugg, W. Webster, and Dr. Spaulding who but recently passed away after many years in practice there. For a long time Lyons contested with Ionia for the county seat, which may account for so many names of physicians at so early a period.

At Saranac, in 1842, were Drs. Rose and Taylor. Later John Brandt, Wm. Fisher in 1855, and Cyreneus Kelsey, 1858. About 1855 came Dr. Powers, who but recently passed away; Pomeroy, Kimberley, A. P. C. Jones, Dreskell and Minch.

Of Dr. George Pray, of Woodward Lake, it was truly said: "A good man has gone," when he not a decade since, was called from his long and useful labors in the northern part of this county. This necrological record is placed on

your books "Lest we forget" those who have preceded us and in whose footsteps we are surely following. Dr. Leartus Connor, of Detroit, is now engaged in gathering the history of the deceased of Michigan's physicians and where any physician has been found to have made any advancement in science, either medical or otherwise or has in any way distinguished himself above his fellows, to gather up these facts together with short biography and photo where possible and to have these published in book form intended for the library of every physician in the state of Michigan. If any one to whom this statement may come, is in possession of knowledge along these lines who can relate anything of importance concerning our deceased brothers of the medical profession he will confer a favor by sending a statement of the same to Dr. Connor, or if such facts be placed in my hands or in those of my successors in office we will take pleasure in forwarding the same.—*Ionia Daily Sentinel*.

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#### KENT.

Kent county is starting the winter's work with renewed energy and spirit, and double our former attendance. We are not only having good papers and case reports coupled with free discussions, but are also commencing to take up and carry forth local work in this community.

Our committee on Public Health and Legislation is doing excellent work in collecting evidence and prosecuting illegal practitioners.

At our meeting on October 23, a committee of five was appointed, who shall be known as the "Milk Commission of the Kent County Medical Society," and who are to take the necessary steps to obtain the proper inspection and certification of milk in this city.

At our last meeting another committee of three was also appointed, to be known as the "Social Purity Committee," whose duty shall be to co-operate with all co-existing organizations to bring about a better state of social purity.

Our anti-tuberculosis committee is working with the Local Anti-Tuberculosis League and are planning a winter's course of lectures for the public.

From all this one cannot help but see that Kent county is looking forward to a profitable and busy winter.

F. C. WARNSHUIS,  
Acting Secretary.

#### PRESQUE ISLE.

At the annual meeting of the Presque Isle County Medical Society, the officers for the coming year were elected as follows: President, Dr. V. W. Shirley, Onaway; vice-president, Dr. W. W. Arscott, Rogers City; secretary-treasurer, Dr. L. C. Kent, Onaway; delegate to the Manistee meeting of the State Society, Dr. John Young, Onaway; alternate, Dr. N. D. Monroe, Millersburg.  
L. C. KENT, Sec'y.

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#### SCHOOLCRAFT.

The regular annual meeting of the Schoolcraft County Medical Society was held in Manistique, October 30, 1907. The following officers were elected for the ensuing year: President, Dr. J. M. Sattler, Manistique; vice-president, Dr. S. S. Haeckwell, Blaney; secretary-treasurer, Dr. G. M. Livingston, Manistique; directors, Dr. D. W. Roos, Manistique, and Dr. John M. Lipson, Germfask.

Our society claims the distinction of being the youngest society in the state, also the honor of having the most perfect organization, every regular practicing physician in the county being a member of the County Medical Society.

G. M. LIVINGSTON, Sec'y.

(Since the organization of the Ontonagon Society and the Antrim Society, the Schoolcraft Society has ceased to be the youngest. The distinction of having every active physician in the county as a member, however, still belongs to the Schoolcraft Society alone.—Ed.)

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#### WASHTENAW.

The October meeting of the Washtenaw County Society was held at Dr. James Breakey's office.

Dr. C. G. Darling read a paper on the "Management of Certain Forms of Intestinal Obstruction." After reporting a number of cases to illustrate various types of obstruction he gave the operative method of treatment employed in each particular case. The difficulty of locating the obstruction was usually met by exploration. The indication would be to relieve the obstruction at this time if possible. This may be done by removing the cause, forming an anastomosis around



it, or making an artificial anus. Owing to great distention or the general bad condition of the patient at the time of the first operation, all of the necessary work sometimes cannot be done, but may be completed at a second operation.

Dr. Frank Smithies discussed the "Diagnostic and Therapeutic Use of Tuberculin." He urged the necessity for early diagnosis in all cases of tuberculosis, whether the process affects lungs or other parts of the body. In many cases this is impossible without the diagnostic injections of tuberculin. He has found the "old tuberculin" of Koch of sufficient practical value to insure its use. He prefers to give successive injections of one, five, or ten milligrams of the tuberculin at varying periods. He occasionally uses the "new tuberculin" (TR), but it is more expensive and the dosage is calculated with some difficulty. Of this the initial injection should be about 1/500 milligram.

Before giving the injections the temperature, taken every two hours for at least a day, should be proven about normal. If the injections are given in the evening, the patient should remain in bed all the next day. He should be taking no medicines. The local and general conditions after the injections should be carefully noted. In typical cases, the rise in temperature occurs within twelve hours after the injection. There are feelings of malaise, pains in the head, back and joints; loss of appetite and occasionally chilly feelings. There is usually a *local* exacerbation of the disease process, which should be looked for particularly. The reaction is usually over at the end of twenty-four hours. If no reaction is given with the initial injection of one milligram, then after a period of rest of about three days, a second injection of five milligrams should be given. If this produces no reaction, then after another rest period, ten milligrams should be injected. In all instances both local and general conditions should be observed. If there is any suspicion of a reaction, the injections should be repeated, and the patient watched more carefully. He has never seen any harmful effects of the reactions. In general, the reaction appears to be specific, although occasionally cases of syphilis, actinomycosis or leprosy respond.

Concerning the use of tuberculin for treatment, he said that in as many cases as possible the opsonic index of the patient should be taken as a guide for the injections. In some cases this was not possible. Injections once a week did not appear to be harmful in these cases. The "new

tuberculin" (TR) of Koch appeared to be the most satisfactory for the therapeutic injections, although good results had been claimed for the "bacilli emulsion" and the watery extract of von Ruck. In cases of pulmonary tuberculosis, injections of from one five-hundredth to one-tenth milligrams appeared to give good results, depending upon the cases. The dose should always be small at first and gradually increased, the rate of increase depending upon whether or not the patient shows any tendency to give a true tuberculin reaction. The possibility of cumulative effect should never be lost sight of. He cited the statistics of Meyer and von Ruck showing that the greatest good comes from the injections in early cases, where the possibility of secondary infection is small, but that nearly all cases are benefited, provided the injections are properly regulated. Cases of localized infection, wherever situated in the body, seem to respond more satisfactorily than cases of disseminated tuberculosis.

In concluding, he pleaded for the greater use of tuberculin for both diagnostic and therapeutic purposes; for the more careful regulation of the injections and for the accurate tabulation of data following the injections.

JOHN WILLIAM KEATING, Sec'y.

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## Correspondence.

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Paris, September, 1907.

To the Editor.

I came to the continent nearly four weeks ago and have seen several very able operators. I have been unfortunate in not finding many of the professors in their clinics, being absent for their summer outing. At Bonn I had the pleasure of seeing Prof. Graff. He is a comparatively young man, about 35, but a bold and confident operator. He does most of his surgical work at the Marine Hospital, beautifully located on the mountain side, surrounded by garden and forest. At the time of my visit it was comfortably filled with patients. The hospital is well equipped and the sanitary conditions ideal.

At Heidelberg, Lucerne and Geneva, only the assistant professors were at the clinics, and their work for the most part was good.

In Paris one can spend his time very advantageously in the hospitals. I found especial pleasure in seeing the work being done by Prof. Pozzi



at the Hospital Broca, where only diseases of women are cared for. He impresses one as a man who has genuine interest in his work, and has the faculty of conveying his ideas to others tersely and clearly.

Among many others of the faculty I met Prof. Doyen, who is doing some beautiful surgery, especially of a plastic nature, and whom I found a most charming man.

The French Surgical Congress met here this week, and some interesting discussions on surgical methods were well worth hearing. Dr. Keating Host, of Marseilles, demonstrated his method of high tension, high frequency current in the treatment of epithelioma and carcinoma uteri in which the results have been remarkable. He was assisted by Dr. Loewy, of Paris. Dr. Hart is a remarkably clever Frenchman of Irish derivation, and very enthusiastic over the new method of treatment, as indeed one would expect. He uses a voltage of over half a million for two or three minutes, with an intermission of the same duration. Then the curette is used to remove the eroded tissue and the electrode again applied until all the diseased tissue is removed. By this method it makes possible the cure of many inoperable cases by any other method. At the clinics I met Dr. Arthur H. Bradley, of St. Louis, Mo., and Dr. Jean F. Wolfs, of Brooklyn, N. Y. Tomorrow I leave for London, and hope to spend next week with Dr. Moynihan, of Leeds, England, and Dr. Thomas, of Liverpool.

O. S. ARMSTRONG.

Leeds, October 18, 1907.

To the Editor.

After my letter from Paris to the Journal last week, Dr. Doyen discussed his method of treating cancer at Saturday's session of the Surgical Congress. He says the treatment of cancer should be both local and general and that Professor Wright, of London, has solved the general treatment by his method of vaccination with cultures of micrococcus neoformans, which has given such remarkably good results. To Professor Metchnikoff, by his discovery of phagocytosis, he gives the credit of furnishing us with the key, what we know of its pathology, and says the human organism has only one defensive process, whatever the bacterial poison may be, and that is phagocytosis. Cure results from the victory of the phagocytes in their battle with pathogenic bacteria and death from their defeat. Un-

derstanding this principle, the question of the treatment of cancer can be grasped more clearly. Many individuals present relative immunity from the disease, and this immunity may be acquired artificially in many others by anti-cancer vaccination either alone or combined with X-rays, electric sparks or dipolar voltaization. The vaccination increases the activity of the phagocytes and the physical agents assist them by lessening the virulence of the cancer cell, which otherwise, when very vigorous, would successfully resist the phagocytes.

This week I am seeing with great interest the clever surgery of Mr. Moynihan at the Leeds Infirmary.

O. S. ARMSTRONG.

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## News

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Numerous cases of typhoid fever are reported in Kalamazoo and in Farmington.

The State Sanatorium for Tuberculosis will soon be able to care for 30 patients.

Dr. Frank P. Kenyon, Plymouth, has sold his practice to Dr. Samuel E. Campbell, Hancock; Dr. Kenyon intends to reside henceforth in California.

Dr. George P. Raynale is to take up practice at Harbor Beach, moving from Birmingham.

An interesting trial has recently been held in Detroit concerning the site proposed by the Board of Health for the Contagious Disease Hospital. Residents in the vicinity of the site, seek a permanent injunction, and obtained the testimony of numerous physicians that disease would be spread to families living near. On the other hand voluminous and weighty testimony was adduced to the contrary, and a decision is now awaited.

Dr. H. Beach Morse has removed from Elk Rapids to Bay City.

Dr. B. H. McMullen is mayor of Cadillac.

Dr. Mary G. Haskins, of Detroit, is taking post-graduate work in Philadelphia.

Dr. J. D. Monroe has removed from Harrisville to Elkton.

A new position on the interne staff of St. Mary's Hospital, Detroit, has been created. The interne will give exclusive attention to internal medicine and will be appointed until June, 1909.

Applications should be made to Dr. A. P. Biddle.

Dr. P. J. Livingstone, formerly of Caro, has opened an office in the Fine Arts Building, Detroit, and will devote his time to ophthalmology and otology.

Dr. G. V. Brown has removed his office from the Gladwin to the Fine Arts building, Detroit.

The office of the State Board of Registration in Medicine has been removed to 504 Washington Arcade, Detroit.

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## Marriages

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Benjamin P. Brodie, M. D., Detroit, to Mrs. Austin D. Tubbs, of Washington, November 14.

H. A. Stuart, M. D., of Alba, to Miss Anna Vandecar, of North Barnch, at the home of the bride, October 23rd.

Wallace J. Smith, M. D., of Cadillac, to Miss Maud Ferguson Dean, of Detroit, October 30.

Simon Levin, M. D., of Lake Linden, to Miss Laura Schrader, of Chicago, October 21.

Raymond A. Clifford, M. D., Ypsilanti, to Miss Lorinda Smith, Mariette, October 15.

James A. King, M. D., Manistee, to Miss Minnie Billington, Cadillac, recently.

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## Deaths

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John S. Ingram, M. D., of Grand Rapids, a retired physician, formerly practicing in Bailey, died at his home, August 3.

Edward R. Jebb, M. D., Battle Creek, met sudden death on October 3, falling down stairs and sustaining a broken neck, aged 53.

Josephine Kingsley, M. D., a graduate of the University of Michigan, Department of Medicine and Surgery, 1873, formerly for five years house physician in the Woman's Hospital, of Detroit, died at her home in San Antonio, Texas, October 13, from heart disease, aged 63.

John Laton Tuttle, M. D., of Clinton, is reported to have died recently, aged 58.

George B. Hammond, M. D., of Royal Oak,

died at his home from stomach disease, October 22, aged 40.

Albert M. Wheeler, M. D., of Houghton, died at his home from paralysis, November 1, aged 48.

Dr. W. J. Bachelor, of Oxford, died at his home, November 26, after a four days' illness. Dr. Bachelor, who was 58 years of age, had practiced in Oxford for 30 years. He is survived by a son, Dr. John Bachelor, also of Oxford.

Dr. Robert Morris, for a number of years coroner of Tuscola County, and health officer of the city of Vassar, died at his home November 27. He is survived by two sons, Dr. H. R. Morris, of Sebawaing, and Dr. H. L. Morris, of Saginaw.

Dr. S. I. Small, formerly councillor from the Eighth District, died suddenly at his home in Saginaw November 23. An obituary notice written by Dr. Small's intimate friends, will appear in the January Journal.

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When replacing the uterus in cases of complete prolapse, reduce first the posterior vaginal wall, then the uterus and lastly the anterior wall.

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A *small* incision and the proper employment of Bier's breast cup will secure exceedingly gratifying results in the management of breast abscesses.

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A perforated intestinal ulcer, especially if low down, may give all the signs and symptoms of acute appendicitis. A very high leucocyte count with a high percentage of polynuclears, and the presence of a large amount of fluid in the peritoneal cavity, accompanied by general rigidity, may suggest the diagnosis.

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Ten grains of trional (or veronal) the night preceding an operation, and a quarter of a grain of morphin one hour before operation, will make an anesthesia easier and more complete and it will not be followed by the usual after-effects of a complete narcosis.

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When there is sudden acute pain in the right abdomen accompanied by rigidity of the abdominal muscles and high fever, making a diagnosis of gall-bladder disease or appendicitis probable, a lesion of the kidney should not be excluded, especially if there is sharp pain on pressure in the right costovertebral angle.

## Progress of Medical Science

### MEDICINE

Conducted by

T. B. COOLEY, M. D.

**Specific Bacilli in the Blood of Measles Patients.**—GIARRI and CARLINI announce that they have succeeded in demonstrating in 21 out of 24 cases of measles in the prodromal and eruptive stages, a bacillus apparently identical with that found by Giarri and Picchi in the secretions of the nose and conjunctiva in this disease in 1901, practically the only difference being that the bacillus from the nose grows readily on some artificial media, while that from the blood was cultivated for only a few generations and with great difficulty. The bacilli resemble very closely Pfeiffer's influenza bacillus, and the authors recall the fact that several others have seen similar organisms occasionally in measles blood.—*Arch. f. Kinderheilkunde*. Vol. 46, p. 262.

**Transmission of Pemphigus Neonatorum.**—KOWEATZI records some interesting observations on an epidemic in the Frauenklinik of the Charité. Starting with a single child, the disease soon spread to 40 others under the care of the same nurse. These children were isolated and the nurse temporarily removed from service for disinfection. Other children which she had handled were not however, quarantined, but handed over to another nurse, and coming down a little later, transmitted the infection further through them to other children under their charge, etc. The demonstration of the carriage of the bacteria by the hands of these nurses could be made almost a mathematical certainty.—*Munch. med. Woch.*, Sept. 24, 1907.

#### Open Air Treatment of Acute Pneumonia.—

RENNIE describes the results obtained by him with this method in the Royal Prince Alfred Hospital in Sydney. It was adopted with all of the cases admitted to his service during ten months—only 20 in all. He places the patient at once on the balcony or veranda of the hospital, and keeps him there night and day, screening the head of the bed from cold winds. Only one of the patients died, and this one was practically moribund on admission. There were some very grave cases among those that recovered. RENNIE believes the treatment to have a favorable effect on nearly all the symptoms. The pulse improves quickly, appetite is better, delirium is lessened, and sleep is more quiet. Drugs are seldom necessary. In this series the temperature never rose above 103.8°, and the crisis occurred in most cases in 2 to 3

days—in no case later than 7 days from the initial rigor. He considers his cases too few to be conclusive, but has seen no ill effects whatever, and thinks the treatment deserves extended trial. Complications, even bronchitis, he does not consider contra-indications.—*Brit. Med. Jour.*, Aug. 31, 1907.

**Pain and Blood Pressure.**—ANSHMAUN has studied this question with a view to determining the value of the reaction of the blood pressure to pain in the diagnosis of hysteria, simulation, and some other conditions. The discrepancies he seems to have demonstrated to be due chiefly to inaccurate measuring of the painful stimulus and to the difference in the point of application, agreeing with Grutzaer and Heidenhain, who found that the stimulus must be applied on or near a sensory nerve trunk. He employed a carefully measured faradic current, so applied as to avoid strong muscle contraction and changes in breathing. The stimulus must, for purposes of comparison, of course, be applied to corresponding nerve areas. He found, in persons with normal pain sensation, and in the normal areas of hysterical subjects a constant and very uniform rise in pressure. Patients with nervous disturbances of the circulation, with or without hypertension, show a greater rise, as do hysterical patients with vasomotor hyperexcitability. A still greater—often very great rise is produced in patients with hypertension due to organic disease, such as contracted kidney. In anesthesia or analgesia, due to organic nerve lesions there is no rise following electrical stimulation. In series of cases of hysterical analgesia and anesthesia the same results were obtained as in organic diseases—stimulation on the sound side being followed by increased pressure, while stimulation on the affected side causes no reaction. This he thinks may have a bearing on the pathology of hysteria. Simulated analgesia, on the other hand, gives the normal reaction. He speaks of the diagnostic value of the effect of spontaneous pain on the blood pressure, agreeing with Pal as to the increase in blood pressure during the gastric crisis of tabes, due perhaps to vasomotor cramp in the splanchnic area. He obtained similar results in bad colic, while in abdominal pain from other causes—ulcer and carcinoma, appendicitis, neuroses, cholelithiasis, etc.—the rise was slight or absent.—*Munch. med. Woch.*, Oct. 15, 1907.



## SURGERY

Conducted by

MAX BALLIN, M. D.

**Nerve Disassociation: A New Method for the Surgical Relief of Certain Painful or Paralytic Affections of Nerve Trunks.**—BABCOCK writes a preliminary report giving the results obtained in treating certain forms of paralysis or paresthesia due to injury or inflammation of nerve trunks by isolating the affected part of the nerve. Technique of the operation is as follows: After sufficiently exposing the affected nerve through an incision, the nerve is isolated from adjacent tissues and a free longitudinal incision of the nerve sheath made. The sheath should be divided, if possible, well beyond the limits of the lesion. The nerve trunk is then lifted upon one or two fingers, held taut, and the nerve fibers carefully separated from each other by means of a small, sharp tenotome. Care is taken to divide as few nerve fibers as possible, although it is aimed to freely separate the nerve fibers from each other. As the nerve fibers become separated, the nerve is transformed from a rounded cord to a flat ribbon-like band of separated fibers. Of four cases in which an operative disassociation of nerve was carried out, three were for painful conditions, and these patients obtained marked relief by the operation. In all four there were paralytic symptoms, and in three of these cases there was an immediate decrease in the palsy following the neurolysis. For the present he concludes that the surgical disassociation of nerve fibers may be carried out without producing gross evidence of reduction in the conducting power of the nerve. Disassociation probably is not as apt to produce paralysis as thorough nerve stretching. In certain cases of neuritis, nerve disassociation is less dangerous and more potent in relieving symptoms than nerve stretching. In certain cases of motor paralysis following inflammation or injury of nerve trunks, disassociation may be followed by a remarkable and almost immediate return of some of the function. In the treatment of certain forms of peripheral paralysis due to interruptions of nerve paths by masses of fibrous or other tissue, the operation of nerve disassociation from its apparent safety and conservatism is deserving of trial. Especially it is warranted in cases of brachial birth palsy where no gross lesion is found in the nerve trunks or where extensive resections, anastomoses, or forms of nerve bridging by catgut or other foreign materials would otherwise be employed.—W. WAYNE BABCOCK, M. D. *Annals of Surgery*, November, 1907.

old, had suffered for eighteen years from attacks of intestinal pain. Since six months, repeated attacks of gall-stone colics, icterus, chills and fever. The chills subsided, but colics and icterus persisted. In the gall-bladder region a distinct tumor is palpable. About five months after onset of these serious symptoms, the woman started coughing. A dullness developed over the lower part of the right lung. The sputum being first purulent, became after two weeks hemorrhagic, and suddenly great quantities of pure bile were expectorated, for instance, by coughing a few times patient raised as much as 8 oz. of bile. Patient was operated upon: Laparotomy (Kehr's incision for gall-bladder.) Gall-bladder was found very much adherent with stone in cystic duct, torsion of the gall-bladder caused pressure on common duct. In dissolving adhesions of gall-bladder, bile escapes from a perforation, the no doubt complicated communication between bile-ducts and lung through the diaphragm could not be demonstrated. The gall-bladder was drained; the discharge of bile through the bronchus stopped immediately after the operation.—DR. O. KLAUBER. *Archiv fuer Klinische Chirurgie*. Vol. 82, Part 2.

**Pathology of Appendicitis.**—Very exhaustive studies undertaken under the guidance of RECKLINGHAUSEN in the pathological laboratory at Strassburg have led the author to the following conclusions: Perforation of the appendix in the majority of cases occurs only after previous affections have damaged the wall of the appendix. Such affections are mainly stricture or obliteration of the cecal end of the appendix, and may be the remnant of a former acute attack or may be caused by purulent infiltration or by necrosis of the appendiceal wall or by both. In the majority of cases the infection starts inside of the appendix; an infection by the blood-current is possible, but it has not been possible to prove it anatomically. Perforation of the appendix can occur with and without the presence of concretions; the concretions contribute to causing perforation by obstructing the lumen of the appendix and rarely by causing decubitus of its wall. Sudden perforation of the appendix wall thinned by Hydrops of the Appendix is possible without acute inflammatory symptoms. Embolism of the main artery of the appendix—infarct—is a special cause of total gangrene of the appendix.—*Mitteilung. aus den Grenzgebieten der Medizin und Chirurgie*. Vol. 17 Parts 1 and 2.

**Gallduct-Bronchial Fistula Cured by Cholecystostomy.**—Married woman, thirty-six years

## GYNECOLOGY AND OBSTETRICS.

Conducted by

B. R. SCHENCK, M. D.

**Appendicitis Complicating the Puerperium.**—

An interesting article on this important subject has been written by HILTON. Women who have had appendicitis are more prone to recurrent attacks during pregnancy, it is then considerably more fatal than at other times, and gestation must not be construed as a contraindication to radical operation. These points have become well established. The problems of appendicitis after child birth have, however, not received the attention which they deserve.

The time of the puerperium being shorter, the cases are fewer than during pregnancy. That many cases are overlooked is apparent, because all of the known cases have been reported since 1893, and about half since 1902.

There is a direct causal relationship between the two conditions both from an anatomic and a physiologic standpoint. The anatomic relationship consist in the displacement and contiguity of these organs during parturition, in the presence of the appendiculo-ovarian ligament, in the aberrant course of the ovarian vessels beneath the cecum (in some instances) and in the continuity of peritoneum and subperitoneal cellular tissues. Such anatomic relations invite an extension of inflammatory process from the one region into the other. While the surgical anatomy is well understood, the knowledge of pathology is meager, because it is gathered from a few cases.

There are 29 cases in the literature. Twenty-two began within 10 days following a full term delivery, and one within the same interval following an abortion. Six cases occurred from 20 days to eight weeks after labor. Aside from these 29 cases there are a few reported that had their beginning during labor.

It is very significant of an etiologic relationship between the puerperal state and the development of appendicitis, that of these 21 cases, 66 per cent developed between the second and the fourth day.

The author says that it is not necessary that the genitals transmit the infection. They may act mechanically by direct pressure, or by traction, causing embarrassment of the circulation, pressure necrosis, or the tearing open of an abscess wall. An inflamed appendix may transmit infection to the genitals, therefore, puerperal sepsis may have its source in a complicating appendicitis, instead of through the usual external agencies.

In six of the cases operation or postmortem ex-

amination revealed the appendix and some portion of the genitals bound together in a septic process.

The signs and symptoms of appendicitis at this time are the same as at other times. The difficulty is to appreciate their true significance. The pain may be regarded as "after pains." When septic infection of the right appendages is present, it may be quite impossible to make the diagnosis of involvement of the appendix.

The surest guide to an early diagnosis is extreme watchfulness on the part of the physician, and careful inquiry as to whether the patient has ever had symptoms of appendicitis.

The prognosis seems grave. Of 22 cases developing within ten days following labor, 10 died, a mortality of 45.5 per cent. Early surgical interference is the rational procedure. The high mortality in operated cases was among those that had been allowed to pass on to suppuration or perforation.—*Surg. Gyn. and Ob.* October, 1907.

**Late Syphilis and Pregnancy.**—F. BERINGER

and G. PEJU, state that the most frequent cause of abortion is syphilis. It is also a cause of hypertrophy of the placenta, vicious insertions, hydramnios, visceral lesions causing the early death of the infant, and various malformations compatible with life. It has an especially marked action on tissues in process of formation, and its influence may be exerted on the organism of mother or child. Another factor in the causation of abortion is the long period during which it can exercise its ravages. In the beginning of syphilis its effects are much more marked in producing abortion than later, and as the length of time since its inception increases its effects are less. Out of 90 cases observed by the authors there were 57 abortions with macerated fetus, five premature births, six hydramnios cases, three syphilitic infants, ten deaths at an early age, and only seven living children. The practical deductions from these considerations are that when pregnancy is interrupted the physician should seek for a history and marks of a previous syphilis, in the shape of pigmented scars, exostoses, and previous abortions. Treatment should be carried out for four years carefully. Syphilitics should be advised not to marry for several years, and every syphilitic patient should be submitted to a course of anti-syphilitic treatment before and during every pregnancy.—*Amer. Journal of Obstetrics.*



## PATHOLOGY AND BACTERIOLOGY

Conducted by

C. S. OAKMAN, M. D.

**Cystitic Lymphangioma of the Gastro-Colic Omentum.**—F. B. WAKEFIELD of Oakland reports a case of the above condition in a child of four years. The cyst was the size of an adult head, broadly attached to the greater curvature of the stomach, and encroaching upon the anterior and posterior walls. It had apparently developed in the upper reflection of the gastro-colic omentum, was multilocular in type, though the bulk of it consisted of one large cyst-chamber; the walls were thin, fragile, smooth; the fluid was clear, straw-colored, neutral, containing in various places cholesterol crystals, blood, and semi-gelatinous material. The spaces were sometimes lined with flat epithelial-like cells; the walls resembled mesoblastic structure, with branching giant cells. WAKEFIELD finds no case in literature with this diagnosis, but mentions a few reports of similar conditions, less fully described, which were probably identical.—*Surgery, Gynecology, and Obstetrics*. August, 1907.

**The Growth of Lymphosarcoma in Dogs. Summary of Recent Observations.**—S. P. BEEBE, in researches conducted at the Loomis Laboratory, New York, has investigated an "infectious lymphosarcoma" occurring naturally on the genital organs of dogs, which can be transplanted to other dogs by subcutaneous "grafts." Although a few pathologists have termed the tissue an "Infectious granuloma," comparable to syphilis, BEEBE does not doubt that it is purely a neoplasm, because micro-organisms are not found characteristically, removal of tumor cells by filtration will prevent inoculation, and the temperature at which the inoculative material becomes inert does not correspond with usual bacterial phenomena. This tumor at first is benign, but later in its growth metastases occur, succeeded by cachexia and death. Extracts of the tumor have a hemolytic effect, and it is probable that the cachexia represents a stage of such proliferation of the tumors that the absorbed autolyzed tissue overcomes the individual's resistance.

Transplantation is effected by carrying a small piece of tumor tissue beneath the skin in a trocar or by subcutaneous injection of a saline emulsion of the tumor cells. The former method is the surer. Incubation increases the virulence, but a certain percentage of animals recover spontaneously and are then immune to implantations of the same tumor. However, an animal thus immunized may become susceptible again if anything occurs to diminish his general resistance.

BEEBE thinks that the blood of an animal may contain some expression of its immune condition, and it is possible perhaps to transfer this immunity to another animal; this belief is based on certain phases of the experiments in transplanting tumors in blood media and in results of transfusions.

In applying the ascertained facts to human pathology, it may be concluded that human tumors are no more infectious than those of dogs; human tumors may be transplantable, but there is no direct experimental evidence, and it cannot be claimed that certain houses or water-courses are sources of infection.—*Journal A. M. A.*, Nov. 2, 1907, p. 1492.

**The Treatment of Experimental Tumors with Bacterial Toxins.**—BEEBE and TRACY, supplementing their work of the foregoing article, experimented with bacterial toxins as a means of treating lymphosarcoma in dogs. This method is parallel to Coley's treatment of sarcoma in human beings. The bacteria used were *B. prodigiosus*, *Strept. pyogenes*, *Staph. pyogenes aureus*, and *B. coli communis*. The preparation consisted usually of sterile suspensions of the whole germ cells. It was endeavored to obtain accurate comparisons by measuring the nitrogen content of pure growths in each case; this does not measure the actual toxic proteid, but it gives an approximate estimation of dosage. The germs were used separately, and also a mixture of *B. prodig.* and *Strept. pyog.*, as well as certain extracted fractions of *B. prodig.*

The results showed undoubted destructive action on the tumor growths, and this was produced even when injections were made at a distance from the lesion. The combined toxins of *B. prodig.* and *Strept. pyog.* were the most effective, and the former seems to have a highly destructive action on neoplastic cells. The susceptibility of tumor cells may be due to the fact that in acquiring the property of infinite multiplication they lose the property of self-defense. Also, the absorption of dead tumor cells may produce an antibody which raises the resistance against cells not yet destroyed by the toxins. The disappearance of tumors was found to be a process of softening, sloughing, and absorption. If this was too rapid, through overdosage, the animals had severe reactions and lost weight. If the dosage was carefully regulated, however, there were no ill effects, and some dogs gained during treatment.—*Journ. A. M. A.*, Nov. 2, '07.



## PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

**Intravenous Injection of Strophanthin.**—

HEDINGER reports, along with several cases of cardiac incompensation and myocarditis, his experience with intravenous injections of strophanthin. The injections are not given at regular intervals, but rather according to indications. Cardiac insufficiency alone is the criterion. If any of the symptoms become pronounced, then 1 mg. of strophanthin is aseptically introduced into a vein. The results are rapid and remarkable. The dyspnea and cyanosis, as well as the subjective symptoms, are benefited. The effects last over a long period. Hence it is essential never to give more than 1 mmg. in 24 hours.

All injections must be made under perfect aseptic conditions, for many of the slight rises of temperature and chills following its administration are believed to be due to infections.

The author believes that by this method dosage is more easily controlled and results are far better than come from the administration of digitalis by mouth.—*Munich. med. Woch.*, Oct. 7, 1907.

**Effect of Baths and Sweating in Nephritis.**—

STRASSER and BLUMENKRANZ have made observations upon patients, suffering from different degrees of chronic parenchymatous nephritis, and find that baths at 34° C (93.2° F.), of one hour and a half's duration, always produce increased diuresis, and elimination of chlorides. There is also an increase in nitrogenous elimination, but it is variable and less marked. The effect is only produced on the day of the bath, and does not last into the succeeding days. It is supposed that there is an actual renal effect, apart from that on the circulation, and the bath treatment was combined with reduction of the intake of sodium chloride. In the case of a child suffering from acute scarlatinal hemorrhagic nephritis, milk diet and a daily bath of one hour's duration were prescribed. Three times in the course of treatment the bath was omitted, and the action, of the kidneys was at once influenced unfavorably. The opposite experience, obtained by increasing the supply of salt, showed that, in patients with chronic Bright's disease, diuresis is decreased, and the bath treatment afterwards brings about an exaggerated excretion of chlorides.

They conclude, therefore, that this treatment should be instituted forthwith when such cases present edema, or symptoms of uremia. It is easy to keep the bath at the proper temperature, by covering it with a sheet, and adding further supplies of hot water from time to time, after

letting some of the bath water run away. After the bath, the patient is put to bed, without being dried, well covered up, and left to rest for one or two hours. Two baths of one hour each a day is the most suitable dose. In patients with arterio-sclerosis and showing uremic symptoms, headache and nausea are produced.

Experiences with the electric light bath at 55° C. (131° F.), showed that in spite of an elimination by the skin of about 279 g., the quantity of urine was only reduced by 100 g., and on the ninth day of this treatment, edema of the face appeared with headache and nausea.

The authors consider that this shows that, when sweating is employed, it is necessary to avoid high temperature baths.—*Blatt für klin. Hydrotherapie*.

**Rectal Feeding.**—MOORE gives a careful review of the absorbability of various kinds of foods by the larger intestine. This is of extreme importance in the light of the frequency to which rectal feeding is resorted to in surgery, as well as medicine.

The amount of proteid that is absorbed from the large bowel, even under favorable circumstances, falls far short of the minimum requirement of the body. The result is always a greater or less breaking down of the tissue proteids to make up for the loss. The rectal administration of fats usually results in considerable absorption. This is especially the case when the fat is well emulsified, as in the yolk of egg. A great diversity of opinion exists on the absorbability of carbohydrates. Sugars, of course, are the most useful. The author recommends the employment of a 10% glucose solution, however, in all nutrient enemata.

Normal salt solution is readily absorbable, and is considered both the best vehicle for rectal feedings, as well as an aid to more complete absorption of other foods. Alcohol is a frequent constituent of nutrient enemata. It may be given in from 0.5 to 2 per cent solutions. It is also believed to facilitate absorption.

MOORE finds that in the average case rectal feeding results in progressive loss of weight. If this is carried on to a marked degree acetoneuria may result and become dangerous. Best results are to be obtained by the use of enemata composed of predigested proteids, of albumoses, or peptones in 10 per cent solution of yolk of egg, of glucose in 10 per cent concentration in a normal salt solution.—*Practitioner*, November, 1907.

## PEDIATRICS

Conducted by

R. S. ROWLAND, M. D.

**Epidemic Anterior Poliomyelitis.**—PISEK, from a study of the recent large epidemic in and about New York city, finds that the epidemic form assumes a symptomatology at variance with the accepted ideas; its course is manifestly different and the prognosis, as to functional recovery, much better than in the sporadic cases hitherto coming under his observation.

The distinguishing features of the epidemic form, are the number of fatal cases, the prominence of pain as a symptom, the absence of convulsive seizures initiating the attack, the cerebral symptoms, the unusual parts of the body involved, and the rapid functional recovery in a good proportion of the cases.

The one symptom that produced the greatest amount of confusion in the recent epidemic was pain. This was a prominent symptom in every case under observation, and undoubtedly led in many instances to the mistaken diagnosis of rheumatism or neuritis. The classical description of the disease as given by Duchenne and Charcot does not emphasize this symptom sufficiently. A mild grade of pain is found to persist in certain cases, for a considerable period, and may be attributed to the relaxation in the joints which has taken place, due to the atonic musculature.

The cerebral symptoms observed were so marked as to resemble the initial stage of cerebrospinal-meningitis. In one of the writer's cases this uncertainty was cleared up by doing a lumbar puncture. The fluid was found to be sterile. Twelve hours after the puncture there was paralysis of the right upper extremity. After 36 hours, functional activity had returned. An internal strabismus is the only complication at the present writing.

A fatal case, seen for the first time on the second day of her illness, had an intense bulbar involvement with dysphagia, dysarthria and paralysis of all four extremities. Many of the children seen had an involvement of the extensor spinal group, and three cases especially confirm the opinion held by Remak that the parts paralyzed were functionally and not anatomically related.

PISEK says that unfortunately we are still groping in the dark as to treatment. Upon the theory that we have a toxemia to deal with, treatment should be directed towards elimination. Salines and high colonic irrigations with daily hot baths, have been used by the writer, during acute stage, the patient being disturbed as little as possible during the interval of treatment. Just as soon as the fever had subsided and retrogression of the paralysis was in evidence, the patient was given massage and light vibration treatment.

PISEK believes that these patients should be placed in the open air, and given a nourishing diet to conserve their musculature and thus aid in convalescence. Orthopedic measures should be instituted early.—*Pediatrics*, November, 1907.

**Some Points in Infantile Tuberculosis.**—

HOLT believes that the frequency of pulmonary tuberculosis in infancy has not been fully appreciated, because we have not been accustomed to look for it with sufficient thoroughness. More careful application of our means of diagnosis has made possible the recognition of tuberculosis in many cases where otherwise it is likely to be overlooked, and has emphasized the fact that pulmonary tuberculosis is a very common disease in infants.

During the 19 months ending May 1, 1907, 67 cases of pulmonary tuberculosis were treated in the Babies' Hospital, 62 of these being infants under two years, and 15 under six months of age.

The diagnosis rested upon finding the bacilli in the sputum in 54 cases; upon postmortem findings in 10; and of the remaining three one had tuberculous meningitis; one reacted to the tuberculin test and the third gave typical clinical symptoms of pulmonary tuberculosis. In only one-half of these cases was there any consolidation in the lungs present at the time that the diagnosis was made, and in 9 cases there were no pulmonary signs whatever, the infants having been admitted for other conditions.

The method at present followed for obtaining the sputum and the one which has given the most satisfactory results is to excite a cough by irritating the throat, and then to catch the sputum brought into view upon a bit of gauze or muslin. The cough may be excited by a spoon or a tongue depressor, or better, by a small bit of muslin in the jaws of an artery clamp. Upon this the secretion is easily secured when it is brought into view by the cough. Muslin is better than gauze or absorbent cotton. Swabs prepared as suggested are placed by the child's bedside and when the nurse notices a severe paroxysm of coughing, the child is picked up, and, if possible, the sputum is obtained. Inversion during the paroxysm of coughing sometimes causes the infant to discharge a considerable mass of mucus into a sputum cup. By the procedure mentioned, it has not been found more difficult to obtain good sputum for examination than in the corresponding stages of the disease of adults.

The foregoing observations tend strongly to confirm one in the opinion that it is direct contagion which is responsible for most of the tuberculosis of infants rather than infection through milk or other food.—*Archives of Pediatrics*, September, 1907.



## LARYNGOLOGY.

Conducted by

J. E. GLEASON, M. D.

**A Plastic Operation for the Closure of the Septal Perforations.**—HASELTINE reports four successful cases of closure of a septal perforation by an original method. The size of the perforation varied but in one case comprised practically the whole cartilagenous portion.

The technic is described as follows:

(1) The edges of the opening are carefully pared, and V-shaped sections are removed above and below to allow approximation of the vertical margins without wrinkling. This is done with scalpel, or with the Ballinger single-tine swivel knife.

(2) A vertical incision is made in the "septum mobile" and a flap is lifted backward to, and entirely around the perforation. This incision is placed far forward to make the widest possible flap anterior to the opening. It should extend upward to the nasal roof, and downward into the floor, and it is well to include in the flap some of the underlying cellular tissue. The elevation should be carried along the nasal floor to a point as far backward as the posterior border of the aperture.

(3) The muco-perichondrium of the opposite side is elevated entirely around the perforation and the bone or cartilage of its immediate border is removed. The swivel knife, bone forceps and chisel may all be useful here. The muco-periosteum of the distal side back of the opening is now elevated as for an extensive bony resection. This elevation must extend to the roof and into the nasal floor.

(4) A vertical curved incision with its concavity forward is made through the distal membrane far enough behind the aperture to produce a flap wider than its anterior-posterior diameter. This flap must be loosened until it can be drawn forward, and sutured to the anterior margin on the same side, or better still, overlapped without sutures.

(5) The proximal flap is slid backward to meet the posterior margin if possible, but not far enough to uncover the juncture of the opposite membranes. Special care must be directed to the upper apex where the sliding of the flaps upon each other is necessarily slight. The flaps are held in position and gently pressed together by delicate pads, and suitable packing, preference being given the Bernay tampon.—*The Laryngoscope*, October, '07.

**The Eustachian Tubes in Infants and Young Children: Anatomical Differences as Compared**

**with the Adult Type: Bearing upon Tympanic Disease.**—KERRISON summarizes the anatomical differences between the eustachian tube of the infant and the adult as follows: (1) It is much shorter, measuring not more than 14 or 15 mm. (33 to 38 in the adult). (2) The tympanic orifice and the calibre of the bony tube are quite as large as in the adult. (3) The two portions of the tube (cartilagenous and bony,) are more nearly in the same straight line so that there is no demonstrable angle at their point of junction. (4) The whole tube is nearly horizontal in direction, so that while the pharyngeal orifice in the adult is on a lower level by 12 to 14 mm. than the tympanic orifice, it is on the same plain as the latter in the infant at term. (5) The pharyngeal mouth of the tube in the infant at term is on a level slightly below the hard palate; whereas in the adult it is some 10 mm. above the level of the hard palate. These physical peculiarities seem therefore rather favorable to the entrance of germs either from the current of inspired air or from the nasal secretions draining posteriorly into the pharynx.—*The Laryngoscope*, September, 1907.

**Esophagoscopic Diagnosis.**—STARCK calls attention to a diseased condition of the upper part of the esophagus not heretofore described, the diagnosis of which, however, is only possible with the esophagoscope. The patients, mostly young females, complain of a feeling of uneasiness and of irritation in the throat, and of slight pain and sticking, especially when swallowing hot food. Examination of the upper part of the esophagus shows two kinds of changes. Circumscribed wound changes, lentil sized, the covering mucous membrane rough, with infiltrated edges, sometimes paler than the surroundings, sometimes intensely injected are noticed. The other form consists of circumscribed projections of the wall with inflammatory mucous membrane changes. Sounding proves these places to be the painful points.—*Proceedings South German Laryngologists*, May, 1907.

**Meningitis from Sphenoidal Empyema: Healing.**—KANDER reports a case of meningitis cured by drainage of a sphenoidal empyema. Pus cells and cocci were found in the cerebrospinal fluid. Clinically, rigidity of the neck muscles, severe headache, muscle hyperesthesia, pupillary inequality, optic neuritis and vomiting were the salient diagnostic points.—*Monatschrift f. Ohren*, xli-8.



## DERMATOLOGY AND SYPHILIS.

Conducted by

A. P. BIDDLE, M. D.

**The Present Status of Our Knowledge of the Parasitology of Syphilis.**—In the two years and four months that have elapsed since the publication of Schaudinn and Hoffmann's first paper, there has appeared an immense literature dealing with the etiology of syphilis. The great majority of the references are confirmatory of Schaudinn and Hoffmann's announcement of the presence of *Spirocheta pallida* in certain of the lesions of lues. A small fraction of the work attacks the correctness of this finding. Enough time has gone by and enough work has been done to make possible a summary of results, and an attempt at determining what conclusions one may draw concerning the present status of our knowledge of the parasitology of syphilis.

Lustgarten's bacillus, DeLisle's bacillus, the numerous other bacilli described in association with syphilis, as well as the parasites of Doehle, of Clarke, of Schüller, and of Horand, may safely be dismissed without discussion.

Has *spirocheta pallida* morphological characteristics sufficiently marked to permit the experienced observer to distinguish between it and other spiral organisms? Its extreme fineness, the looseness and regularity of its spirals, and its peculiar staining reaction, which makes it, at first, so difficult to see the Giemsa stained preparations, are not shared by any other organism thus far described. Further distinguishing characters are the peculiar motility and the lack of refractility in the living condition.

Granting that it is possible to differentiate *Spirocheta pallida* from other spiral organisms, there arises the question of its frequency in the lesions of syphilis. In earlier reports, a certain percentage of undoubted primary lesions examined, gave negative results. With increased experience this percentage has constantly decreased, until today the results of competent observers are positive in as large a proportion of cases as are the examinations for the tubercle bacillus in undoubted tuberculous lesions.

In condylomata, in buccal patches and in the early lesions of the cutaneous eruption, the results are equally constant. As the skin manifestations become older the organism is less frequently found. This may be due, in part, to the therapeutic treatment which the patient has received, in part, to a disappearance of the causative agent after the lesion is well established. That the organism does, however, occur in the late manifestations, cannot be doubted. In still later lesions, those of the tertiary stage, the findings are even more inconstant.

If one excepts two or three doubtful reports, the gummata of acquired syphilis have yielded uniformly negative results. An entire absence of spirochete in old necrotic gummata is to be expected. There is an exact parallel in the failure to find tubercle bacilli in old, encapsulated, case-

ous tubercles. An encapsulated gumma is no longer an essentially syphilitic lesion. The specific vascular change and the action of the spirocheta have resulted in caseation. If, in this necrosis, the organisms are also completely destroyed there results a chronic inflammatory formation of connective tissue due, not to living organisms, but to the presence of the necrotic material.

The question of the constant occurrence of *spirocheta pallida* has received its most brilliant answer in congenital syphilis. Here the organism has been uniformly found.

The comparatively small number of cases in which *spirocheta pallida* has been found in the blood during the secondary stage, is advanced by some as a reason for doubting the etiological relationship of the organism. The production of the rash in syphilis is the same sort of a process as the formation of rose-spots in typhoid fever. Everyone knows how difficult it is to prove the presence of typhoid bacilli in the circulating blood. Large amounts of blood are required and the small number of bacilli in this amount of blood must be allowed to grow out upon artificial media. It is impossible to find the bacilli in smears made directly from the blood. It is almost equally difficult to find *spirocheta pallida* in the circulating blood, because of the small number of organisms present in the blood at any one time.

In doubtful clinical cases the presence of the organism in smears made from primary and secondary lesions, would likewise render possible a certain and positive diagnosis. Just as is the case with other microscopic diagnoses, a negative result in an individual case may be valueless. The value of a negative finding will depend, in great measure, upon the experience of the microscopist and upon the technic employed by him.

The presence of undoubted examples of *spirocheta pallida* in smears from early primary lesions ought to influence the treatment and the clinical course of the disease. Heretofore the clinician has been dependent upon the appearance of secondary manifestations in order to establish a certain diagnosis, and, as a rule, treatment is delayed until this period.

Because it has thus far been impossible to obtain and grow the organism in pure culture, Koch's postulates are not susceptible of proof. However, the constant presence of the parasite in the lesions of syphilis, its presence only in syphilis and not in other diseases, its definite relationship to the pathological changes, its morphological characteristics, and its presence in the lesions of experimental syphilis of lower animals, furnish evidence to establish the etiological relationship of *spirocheta pallida* to syphilis.—OSCAR T. SCHULTZ, M. D. From the Pathological Laboratory of Western Reserve University, Cleveland, Ohio.

## ORTHOPEDIC SURGERY

Conducted by

WILLIAM E. BLODGETT, M. D.

**A Preliminary Report on the Relation of Albuminous Putrefaction in the Intestines to Arthritis Deformans (Rheumatoid Arthritis, Osteo Arthritis): Its Influence upon Treatment.**—ANDREWS and HOKE, Atlanta, Ga., report decided improvement in apparently all types of chronic non-tuberculous arthritis by exclusive diet of fermented milk. Kefilac tablets were used to produce the lactic acid fermentation; and in one case three quarts in the twenty-four hours of milk thus fermented were given for 3½ months. Laxatives are used, and as the condition improves, bread stuffs and fresh vegetables allowed. The article continues as follows:

"The uniform improvement of the symptoms, however varied they may have been, the unvarying disappearance most usually of all the soft tissue thickening around the joints when these patients have been put on a fermented milk diet, demonstrates beyond the shadow of doubt that fermented milk diet is, par excellence, the food for these patients. It was taken without anything else by Case 1 for over one year. Patients tire quickly on any one form of diet, yet they all bear it well for a month or six weeks, and by allowing them a little change then, it is then easy to go back to the fermented milk.

"The stools and urine on a fermented milk diet may still show evidence of albuminous putrefaction, still the toxic effects lessen or disappear.

"There one must acknowledge that one comes against a great wall of ignorance: A lack of knowledge of the toxins produced by the putrefactive bacteria in the intestines, yet this much must be true that the putrefaction changes produced by the intestinal bacteria on fermented milk do not elaborate the toxins formed by the putrefactive decomposition of meat.

"This is certainly true clinically as is evidenced by not only the improvement in the general condition of the patient and of the joint inflammation, but by the fact that the daily slight rise of temperature disappears in a short while after these patients are put on fermented milk."—*Am. Jour. of Orthopedic Surg.*, July, 1907, pp. 61-72.

**A Preliminary Report Upon Ten Cases of Chronic Joint Disease, Treated by Tuberculin Injections by Wright's Method.**—In a study based on ten cases RIDLON, Chicago, comes to the following conclusions:

"A low tuberculo-opsonic index with local joint symptoms may be accepted as evidence of joint tuberculosis. But a practicably normal tuberculo-opsonic index, together with local joint symptoms, neither proves nor disproves joint tuberculosis.

"When the diagnosis of joint tuberculosis has been made a high tuberculo-opsonic index should be maintained, if possible.

"With a high tuberculo-opsonic index an oper-

ation for the removal of all or part of the local diseases may be undertaken; not so with a low index.

If use of the diseased joint lowers the opsonic index, the joint must be protected; if it does not lower the index, it may be permitted; if it raises the index it should be insisted upon.

"General elevation of the temperature following a tuberculin injection, indicates too large a dose. A persistent lowering of the index during treatment by tuberculin injection, indicates that the injection has been given at the wrong time, during what Wright calls the negative phase, instead of during the positive phase."

"While the time has been too short and the patients too few to predict ultimate results, the fact that the results thus far have been by no means brilliant, should be taken as encouraging rather than discouraging. I believe the tubercle injection treatment guided by the tuberculo-opsonic index to be a most promising step in advance in the treatment of tubercular joint disease."—*Am. Jour. Orthopedic Surg.*, July, 1907, Vol. 1, pp. 14-23.

**Congenital Bends and Pseudoarthroses of the Leg.**—E. GASNE states that these lesions appear as follows:

(1) Congenital bends of the tibia at junction of middle and lower thirds, without abnormal mobility; (2) forward bends as above, which upon slight injury develop into pseudoarthroses, that do not tend to heal; (3) congenital pseudoarthroses; (4) apparently normal condition at birth, followed, perhaps several years later by pseudoarthroses upon slight trauma. GASNE favors the theory of arrested development as the explanation of the condition. It is distinguished from intrauterine fracture by defect of the fibula (although the fibula may be normal with arrested development of the tibia), marked valgus and atrophy of the foot, and any other congenital malformation of the limb, as in the toes; the skin over the congenital bend often shows a tendency to a partly adherent cicatrization.

The treatment of slight congenital bends is by protective apparatus; forcible correction is liable to be followed by pseudoarthrosis. In severe cases, apparatus to provide for weight-bearing is needed, but is not well borne by the poorly nourished limb; a plastic bone operation may be tried, but it is often necessary to resort to amputation. In severe cases of pseudoarthrosis, apparatus or amputation is indicated; in pseudoarthrosis of medium grade, tenotomy of the tendo Achilles, straightening and local stimulating measures are called for; in cases of pseudoarthrosis with fairly solid bones, bone operations offer a fair chance of firm union.

Fifty-nine cases are cited and a bibliography added.—*Revue d'Orthopedie*, May and July, 1907.





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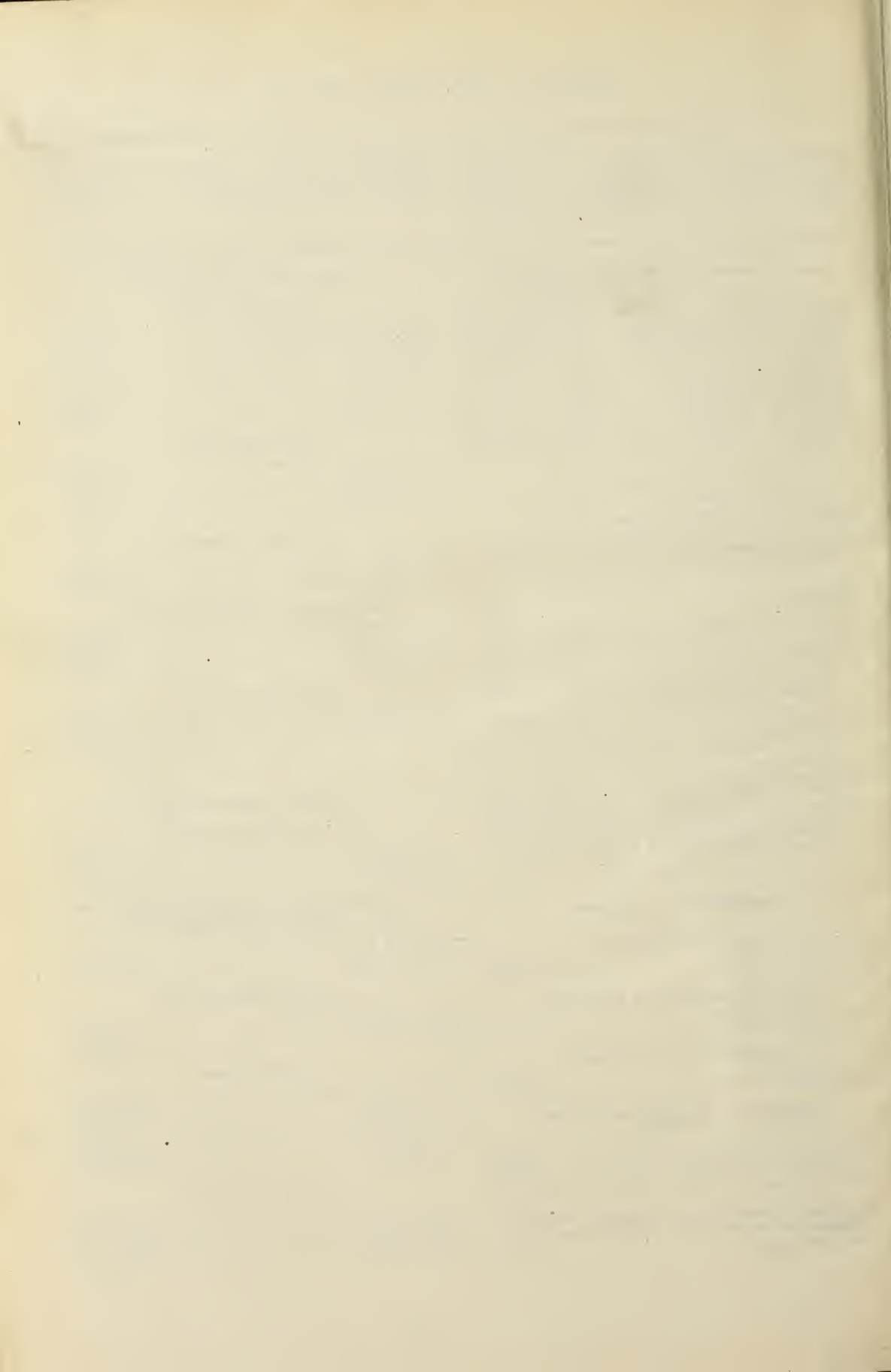
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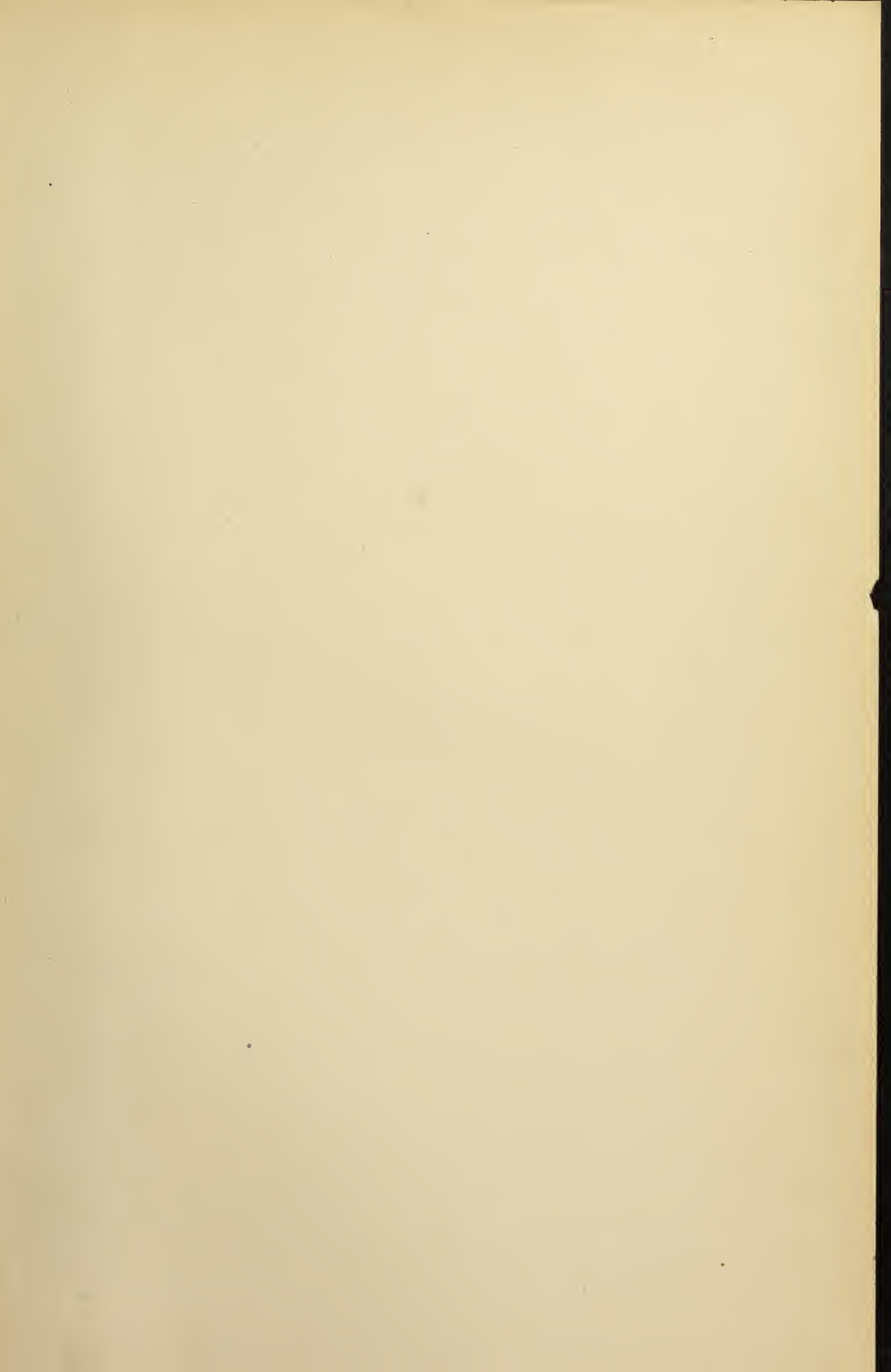
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